

Title: System Theory Enables a Deep Exploration of ReRAM Cells' Switching Phenomena

Author(s): Ascoli, A (Ascoli, A.); Tetzlaff, R (Tetzlaff, R.); Menzel, S (Menzel, S.); Rana, V (Rana, V)

Book Group Author(s): IEEE

Source: 2021 28TH IEEE INTERNATIONAL CONFERENCE ON ELECTRONICS, CIRCUITS, AND SYSTEMS (IEEE ICECS 2021) **Book Series:** IEEE International Conference on Electronics Circuits and Systems **DOI:** 10.1109/ICECS53924.2021.9665611 **Published:** 2021

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Conference Title: 28th IEEE International Conference on Electronics, Circuits, and Systems (IEEE ICECS)

Conference Date: NOV 28-DEC 01, 2021

Conference Location: Dubai, U ARAB EMIRATES

Conference Sponsors: IEEE, IEEE Circuits & Syst Soc, Univ Dubai, Zayed Univ, Univ Louisiana Lafayette, Dubai Tourism, Digital Dubai, Huawei, IEEE Young Profess

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ISBN: 978-1-7281-8281-0

Title: The low-temperature heat capacity of the Sb₂Te₃-xSex solid solution from experiment and theory

Author(s): Herrmann, MG (Herrmann, M. G.); Stoffel, RP (Stoffel, R. P.); Dronskowski, R (Dronskowski, R.); Friese, K (Friese, K.)

Source: JOURNAL OF PHYSICS-CONDENSED MATTER **Volume:** 30 **Issue:** 40 **Article Number:** 405702 **DOI:** 10.1088/1361-648X/aade0e **Published:** OCT 10 2018

Accession Number: WOS:000444977000002

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ISSN: 0953-8984

eISSN: 1361-648X

Title: Ag/GeS_x/Pt-based complementary resistive switches for hybrid CMOS/Nanoelectronic logic and memory architectures

Author(s): van den Hurk, J (van den Hurk, Jan); Havel, V (Havel, Viktor); Linn, E (Linn, Eike); Waser, R (Waser, Rainer); Valov, I (Valov, Ilia)

Source: SCIENTIFIC REPORTS **Volume:** 3 **Article Number:** 2856 **DOI:** 10.1038/srep02856 **Published:** OCT

4 2013

Accession Number: WOS:000325216000003

PubMed ID: 24091355

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van den Hurk, Jan	F-5508-2010	0000-0001-7710-8325
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2045-2322

Title: Transition between bipolar and abnormal bipolar resistive switching in amorphous oxides with a mobility edge

Author(s): Ader, C (Ader, Christiane); Falkenstein, A (Falkenstein, Andreas); Martin, M (Martin, Manfred)

Source: SCIENTIFIC REPORTS **Volume:** 11 **Issue:** 1 **Article Number:** 14384 **DOI:** 10.1038/s41598-021-93777-6 **Published:** JUL 13 2021

Accession Number: WOS:000675273800023

PubMed ID: 34257338

ISSN: 2045-2322

Title: TEM study of < 110 >-type 35.26 degrees dislocations specially induced by polishing of SrTiO3 single crystals

Author(s): Jin, L (Jin, L.); Guo, X (Guo, X.); Jia, CL (Jia, C. L.)

Source: ULTRAMICROSCOPY **Volume:** 134 **Special Issue:** SI **Pages:** 77-85 **DOI:** 10.1016/j.ultramic.2013.06.009 **Published:** NOV 2013

Accession Number: WOS:000324474900012

PubMed ID: 23896031

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Jin, Lei	D-2404-2010	0000-0001-6924-2364

ISSN: 0304-3991

eISSN: 1879-2723

Title: Atomistic Investigation of the Schottky Contact Conductance Limits at SrTiO3 based Resistive Switching Devices

Author(s): Funck, C (Funck, Carsten); Schmidt, PC (Schmidt, Peter C.); Baumer, C (Baeumer, C.); Dittmann, R (Dittmann, Regina); Martin, M (Martin, Manfred); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Book Group Author(s): IEEE

Source: 2018 NON-VOLATILE MEMORY TECHNOLOGY SYMPOSIUM (NVMTS 2018) **Published:** 2018

Accession Number: WOS:000494342800007

Conference Title: Non-Volatile Memory Technology Symposium (NVMTS)

Conference Date: OCT 22-24, 2018

Conference Location: Sendai, JAPAN

Conference Sponsors: Tohoku Univ, CIES, IEEE, Electron Devices Soc, Sendai Tourism, Convent & Int Assoc, Toshiba Memory, TEL

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Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISBN: 978-1-5386-7783-4

Title: Energy-efficient Redox-based Non-Volatile Memory Devices and Logic Circuits

Author(s): Waser, R (Waser, Rainer); Rana, V (Rana, Vikas); Menzel, S (Menzel, Stephan); Linn, E (Linn, Eike)

Book Group Author(s): IEEE

Source: 2013 THIRD BERKELEY SYMPOSIUM ON ENERGY EFFICIENT ELECTRONIC SYSTEMS (E3S) **Published:** 2013

Accession Number: WOS:000349828300010

Conference Title: 3rd Berkeley Symposium on Energy Efficient Electronic Systems (E3S)

Conference Date: OCT 28-29, 2013

Conference Location: Univ California, Berkley, CA

Conference Sponsors: Ctr Energy Efficient Elect Sci, NSF, IEEE, Electron Devices Soc, Lam Res, Appl Mater, Ctr Informat Technol Res Interest Soc

Conference Host: Univ California

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISBN: 978-1-4799-3372-3

Title: Electrical and optical characterization of freestanding Ge₁Sb₂Te₄ nano-membranes integrated in coplanar strip lines

Author(s): Mikulics, M (Mikulics, M.); Marso, M (Marso, M.); Adam, R (Adam, R.); Schuck, M (Schuck, M.); Fox, A (Fox, A.); Sobolewski, R (Sobolewski, R.); Kordos, P (Kordos, P.); Luth, H (Lueth, H.); Grutzmacher, D (Gruetzmacher, D.); Hardtdegen, H (Hardtdegen, H.)

Edited by: Hascik S; Dzuba J; Vanko G

Source: 2016 11TH INTERNATIONAL CONFERENCE ON ADVANCED SEMICONDUCTOR DEVICES & MICROSYSTEMS (ASDAM) **Book Series:** International Conference on Advanced Semiconductor Devices and Microsystems **Pages:** 73-76 **Published:** 2016

Accession Number: WOS:000392530900018

Conference Title: 11th International Conference on Advanced Semiconductor Devices & Microsystems (ASDAM)

Conference Date: NOV 13-16, 2016

Conference Location: Smolenice, SLOVAKIA

Conference Sponsors: IEEE, IEEE Electron Devices Soc, Academia Scientiarum Slovaca, ELU, Slovak Acad Sci, Inst Elect Engn, Dept Microelectron & Sensors, Slovak Univ Technol, Fac Elect Engn & Informat Technol, Inst Elect & Photon

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Hardtdegen, Hilde	P-2916-2019	

ISSN: 2475-2916

ISBN: 978-1-5090-3083-5

Title: Stateful Three-Input Logic with Memristive Switches

Author(s): Siemon, A (Siemon, A.); Drabinski, R (Drabinski, R.); Schultis, MJ (Schultis, M. J.); Hu, X (Hu, X.); Linn, E (Linn, E.); Heittmann, A (Heittmann, A.); Waser, R (Waser, R.); Querlioz, D (Querlioz, D.); Menzel, S (Menzel, S.); Friedman, JS (Friedman, J. S.)

Source: SCIENTIFIC REPORTS **Volume:** 9 **Article Number:** 14618 **DOI:** 10.1038/s41598-019-51039-6 **Published:** OCT 10 2019

Accession Number: WOS:000489555900012

PubMed ID: 31602003

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ISSN: 2045-2322

Title: Electronic Structure of Oxygen-Deficient SrTiO₃ and Sr₂TiO₄

Author(s): Al-Zubi, A (Al-Zubi, Ali); Bihlmayer, G (Bihlmayer, Gustav); Blugel, S (Bluegel, Stefan)

Source: CRYSTALS **Volume:** 9 **Issue:** 11 **Article Number:** 580 **DOI:** 10.3390/cryst9110580 **Published:** NOV 2019

Accession Number: WOS:000502270800035

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eISSN: 2073-4352

Title: Inhomogeneity of donor doping in SrTiO₃ substrates studied by fluorescence-lifetime imaging microscopy

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Gensch, T (Gensch, T.); Speier, W (Speier, W.); Breuer, U (Breuer, U.); Pilch, M (Pilch, M.); Hardtdegen, H (Hardtdegen, H.); Mikulics, M (Mikulics, M.); Zych, E (Zych, E.); Waser, R (Waser, R.); Szot, K (Szot, K.)

Source: APPLIED PHYSICS LETTERS **Volume:** 103 **Issue:** 16 **Article Number:** 162904 **DOI:** 10.1063/1.4825367 **Published:** OCT 14 2013

Accession Number: WOS:000326148700064

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Speier, Wolfgang		0000-0002-3900-6931
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 0003-6951

Title: Tuning the Memory Window of TaOx ReRAM using the RF Sputtering Power

Author(s): Kim, W (Kim, Wonjoo); Wouters, DJ (Wouters, Dirk J.); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Book Group Author(s): IEEE

Source: 2021 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS (ISCAS) **Book Series:** IEEE International Symposium on Circuits and Systems **DOI:** 10.1109/ISCAS51556.2021.9401584 **Published:** 2021

Accession Number: WOS:000706507900107

Conference Title: IEEE International Symposium on Circuits and Systems (IEEE ISCAS)

Conference Date: MAY 22-28, 2021

Conference Location: Daegu, SOUTH KOREA

Conference Sponsors: IEEE

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Rana, Vikas	GLV-5735-2022	

ISSN: 0271-4302

ISBN: 978-1-7281-9201-7

Title: Multiscale Simulation of ReRAMs Based on the Valence Change Mechanism

Author(s): Menzel, S (Menzel, S.); Funck, C (Funck, C.); La Torre, C (La Torre, C.); Marchewka, A (Marchewka, A.)

Book Group Author(s): IEEE

Source: 2018 IEEE 18TH INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY (IEEE-NANO) **Book Series:** IEEE International Conference on Nanotechnology **Published:** 2018

Accession Number: WOS:000458785600087

Conference Title: 18th IEEE International Conference on Nanotechnology (IEEE-NANO)

Conference Date: JUL 23-26, 2018

Conference Location: Tyndall Natl Inst, Cork, IRELAND

Conference Sponsors: IEEE, Univ Coll Cork, Sci Fdn Ireland

Conference Host: Tyndall Natl Inst

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ISSN: 1944-9399

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ISBN: 978-1-5386-5336-4

Title: An atomistic view on the Schottky barrier lowering applied to SrTiO3/Pt contacts

Author(s): Funck, C (Funck, C.); Menzel, S (Menzel, S.)

Source: AIP ADVANCES **Volume:** 9 **Issue:** 4 **Article Number:** 045116 **DOI:** 10.1063/1.5082733 **Published:** APR 2019

Accession Number: WOS:000466614700053

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

eISSN: 2158-3226

Title: On the Origin of the Fading Memory Effect in ReRAMs

Author(s): Menzel, S (Menzel, S.); Waser, R (Waser, R.); Siemon, A (Siemon, A.); La Torre, C (La Torre, C.); Schulten, M (Schulten, M.); Waser, R (Waser, R.); Ascoli, A (Ascoli, A.); Tetzlaff, R (Tetzlaff, R.)

Book Group Author(s): IEEE

Source: 2017 27TH INTERNATIONAL SYMPOSIUM ON POWER AND TIMING MODELING, OPTIMIZATION AND SIMULATION (PATMOS) **Book Series:** International Symposium on Power and Timing Modeling Optimization and Simulation **Published:** 2017

Accession Number: WOS:000426525200016

Conference Title: 27th International Symposium on Power and Timing Modeling, Optimization and Simulation (PATMOS)

Conference Date: SEP 25-27, 2017

Conference Location: Thessaloniki, GREECE

Conference Sponsors: Aristotle Univ Res Disseminat Ctr, Aristotle Univ Thessaloniki, Dept Phys, IEEE, IEEE Circuits & Syst Soc

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ISSN: 2474-5456

ISBN: 978-1-5090-6462-5

Title: Tailoring the switching performance of resistive switching SrTiO₃ devices by SrO interface engineering

Author(s): Hensling, FVE (Hensling, F. V. E.); Heisig, T (Heisig, T.); Raab, N (Raab, N.); Baeumer, C (Baeumer, C.); Dittmann, R (Dittmann, R.)

Source: SOLID STATE IONICS **Volume:** 325 **Pages:** 247-250 **DOI:** 10.1016/j.ssi.2018.09.003 **Published:** NOV 1 2018

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ISSN: 0167-2738

eISSN: 1872-7689

Title: Analytical analysis of the generic SET and RESET characteristics of electrochemical metallization memory cells

Author(s): Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer)

Source: NANOSCALE **Volume:** 5 **Issue:** 22 **Pages:** 11003-11010 **DOI:** 10.1039/c3nr03387b **Published:** 2013

Accession Number: WOS:000326225500037

PubMed ID: 24065212

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ISSN: 2040-3364

eISSN: 2040-3372

Title: Onsager approach to the one-dimensional solidification problem and its relation to the phase-field description

Author(s): Brener, EA (Brener, Efim A.); Temkin, DE (Temkin, D. E.)

Source: PHYSICAL REVIEW E **Volume:** 85 **Issue:** 3 **Article Number:** 031601 **DOI:**

10.1103/PhysRevE.85.031601 **Part:** 1 **Published:** MAR 19 2012

Accession Number: WOS:000301844200007

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ISSN: 1539-3755

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Title: Statistical modeling of electrochemical metallization memory cells

Author(s): Menzel, S (Menzel, S.); Valov, I (Valov, I.); Waser, R (Waser, R.); Wolf, B (Wolf, B.); Tappertzhofen, S (Tappertzhofen, S.); Bottger, U (Boettger, U.)

Book Group Author(s): IEEE

Source: 2014 IEEE 6TH INTERNATIONAL MEMORY WORKSHOP (IMW) **Book Series:** IEEE International Memory Workshop **Published:** 2014

Accession Number: WOS:000346141000011

Conference Title: IEEE 6th International Memory Workshop (IMW)

Conference Date: MAY 18-21, 2014

Conference Location: Taipei, TAIWAN

Conference Sponsors: IEEE

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ISSN: 2330-7978

ISBN: 978-1-4799-3596-3

Title: Au Nanoparticles as Template for Defect Formation in Memristive SrTiO₃ Thin Films

Author(s): Raab, N (Raab, Nicolas); Schmidt, DO (Schmidt, Dirk Oliver); Du, HC (Du, Hongchu); Kruth, M (Kruth, Maximilian); Simon, U (Simon, Ulrich); Dittmann, R (Dittmann, Regina)

Source: NANOMATERIALS **Volume:** 8 **Issue:** 11 **Article Number:** 869 **DOI:** 10.3390/nano8110869 **Published:** NOV 2018

Accession Number: WOS:000451316100004

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ISSN: 2079-4991

Title: Engineering antiphase boundaries in epitaxial SrTiO₃ to achieve forming free memristive devices

Author(s): Hensling, FVE (Hensling, Felix V. E.); Du, HC (Du, Hongchu); Raab, N (Raab, Nicolas); Jia, CL (Jia, Chun-Lin); Mayer, J (Mayer, Joachim); Dittmann, R (Dittmann, Regina)

Source: APL MATERIALS **Volume:** 7 **Issue:** 10 **Article Number:** 101127 **DOI:** 10.1063/1.5125211 **Published:** OCT 2019

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Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 2166-532X

Title: Investigation of the Impact of High Temperatures on the Switching Kinetics of Redox-Based Resistive Switching Cells using a High-Speed Nanoheater

Author(s): von Witzleben, M (von Witzleben, Moritz); Fleck, K (Fleck, Karsten); Funck, C (Funck, Carsten); Baumkotter, B (Baumkoetter, Brigitte); Zuric, M (Zuric, Milena); Idt, A (Idt, Alexander); Breuer, T (Breuer, Thomas); Waser, R (Waser, Rainer); Bottger, U (Boettger, Ulrich); Menzel, S (Menzel, Stephan)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 3 **Issue:** 12 **Article Number:** 1700294 **DOI:** 10.1002/aelm.201700294 **Published:** DEC 2017

Accession Number: WOS:000417647400011

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ISSN: 2199-160X

Title: Requirements and Challenges for Modelling Redox-based Memristive Devices

Author(s): Menzel, S (Menzel, Stephan); Siemon, A (Siemon, Anne); Ascoli, A (Ascoli, Alon); Tetzlaff, R (Tetzlaff, Ronald)

Book Group Author(s): IEEE

Source: 2018 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS (ISCAS) **Book Series:** IEEE International Symposium on Circuits and Systems **DOI:** 10.1109/ISCAS.2018.8351696 **Published:** 2018

Accession Number: WOS:000451218703144

Conference Title: IEEE International Symposium on Circuits and Systems (ISCAS)

Conference Date: MAY 27-30, 2018

Conference Location: Florence, ITALY

Conference Sponsors: IEEE, Politecnico Torino, Analog Devices, CADENCE, Texas Instruments, AiCTX, Springer Nat, River Publishers, Nat Electron, CAS

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ISSN: 0271-4302

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Title: On the SET/RESET current asymmetry in electrochemical metallization memory cells

Author(s): Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 8 **Issue:** 6 **Special Issue:** SI **Pages:** 540-544 **DOI:** 10.1002/pssr.201308310 **Published:** JUN 2014

Accession Number: WOS:000338021200011

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 1862-6254

eISSN: 1862-6270

Title: The ultimate switching speed limit of redox-based resistive switching devices

Author(s): Menzel, S (Menzel, Stephan); von Witzleben, M (von Witzleben, Moritz); Havel, V (Havel, Viktor); Bottger, U (Boettger, Ulrich)

Source: FARADAY DISCUSSIONS **Volume:** 213 **Pages:** 197-213 **DOI:** 10.1039/c8fd00117k **Published:** FEB 1 2019

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ISSN: 1359-6640

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Title: Surface Atomic Structure and Growth Mechanism of Monodisperse {100}-Faceted Strontium Titanate Zirconate Nanocubes

Author(s): Du, HC (Du, Hongchu); Jia, CJ (Jia, Chun-Jin); Mayer, J (Mayer, Joachim)

Source: CHEMISTRY OF MATERIALS **Volume:** 28 **Issue:** 2 **Pages:** 650-656 **DOI:** 10.1021/acs.chemmater.5b04486 **Published:** JAN 26 2016

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ISSN: 0897-4756**eISSN:** 1520-5002

Title: Impact of cation stoichiometry on the early stage of growth of SrTiO₃ deposited by pulsed laser deposition**Author(s):** Xu, CC (Xu, Chencheng); Moors, M (Moors, Marco); Dittmann, R (Dittmann, Regina)**Source:** APPLIED SURFACE SCIENCE **Volume:** 359 **Pages:** 68-72 **DOI:**10.1016/j.apsusc.2015.10.072 **Published:** DEC 30 2015**Accession Number:** WOS:000366220600011**Author Identifiers:**

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ISSN: 0169-4332**eISSN:** 1873-5584

Title: Feasibility studies for filament detection in resistively switching SrTiO₃ devices by employing grazing incidence small angle X-ray scattering**Author(s):** Stille, S (Stille, S.); Baeumer, C (Baeumer, C.); Krannich, S (Krannich, S.); Lenser, C (Lenser, C.); Dittmann, R (Dittmann, R.); Perlich, J (Perlich, J.); Roth, SV (Roth, S. V.); Waser, R (Waser, R.); Klemradt, U (Klemradt, U.)**Source:** JOURNAL OF APPLIED PHYSICS **Volume:** 113 **Issue:** 6 **Article Number:** 064509 **DOI:**10.1063/1.4792035 **Published:** FEB 14 2013**Accession Number:** WOS:000315054000088**Author Identifiers:**

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Stille, Sebastian		0000-0002-8355-162X

ISSN: 0021-8979

Title: A HfO₂-Based Complementary Switching Crossbar Adder**Author(s):** Breuer, T (Breuer, Thomas); Siemon, A (Siemon, Anne); Linn, E (Linn, Eike); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)**Source:** ADVANCED ELECTRONIC MATERIALS **Volume:** 1 **Issue:** 10 **Article Number:** 1500138 **DOI:**10.1002/aelm.201500138 **Published:** OCT 2015**Accession Number:** WOS:000365440700004**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Breuer, Thomas		0000-0001-6995-9226

ISSN: 2199-160X

Title: Understanding filamentary growth in electrochemical metallization memory cells using kinetic Monte Carlo simulations

Author(s): Menzel, S (Menzel, Stephan); Kaupmann, P (Kaupmann, Philip); Waser, R (Waser, Rainer)

Source: NANOSCALE **Volume:** 7 **Issue:** 29 **Pages:** 12673-12681 **DOI:** 10.1039/c5nr02258d **Published:** 2015

Accession Number: WOS:000358207700052

PubMed ID: 26150320

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2040-3364

eISSN: 2040-3372

Title: In-Gap States and Band-Like Transport in Memristive Devices

Author(s): Baeumer, C (Baeumer, Christoph); Funck, C (Funck, Carsten); Locatelli, A (Locatelli, Andrea); Menten, TO (Menten, Tefvik Onur); Genuzio, F (Genuzio, Francesca); Heisig, T (Heisig, Thomas); Hensling, F (Hensling, Felix); Raab, N (Raab, Nicolas); Schneider, CM (Schneider, Claus M.); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: NANO LETTERS **Volume:** 19 **Issue:** 1 **Pages:** 54-60 **DOI:** 10.1021/acs.nanolett.8b03023 **Published:** JAN 2019

Accession Number: WOS:000455561300007

PubMed ID: 30241437

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Baeumer, Christoph	AHA-1151-2022	
Genuzio, Francesca	Y-9930-2019	
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Baeumer, Christoph		0000-0003-0008-514X
Hensling, Felix		0000-0003-3852-7214
Locatelli, Andrea		0000-0002-8072-7343

ISSN: 1530-6984

eISSN: 1530-6992

Title: High-pressure nuclear inelastic scattering with backscattering monochromatization

Author(s): Sergueev, I (Sergueev, Ilya); Glazyrin, K (Glazyrin, Konstantin); Herrmann, MG (Herrmann, Markus G.); Alexeev, P (Alexeev, Pavel); Wille, HC (Wille, Hans-Christian); Leupold, O (Leupold, Olaf); May, AF (May, Andrew F.); Pandey, T (Pandey, Tribhuvan); Lindsay, LR (Lindsay, Lucas R.); Friese, K (Friese, Karen); Hermann, RP (Hermann, Raphael P.)

Source: JOURNAL OF SYNCHROTRON RADIATION **Volume:** 26 **Pages:** 1592-1599 **DOI:** 10.1107/S1600577519008853 **Part:** 5 **Published:** SEP 2019

Accession Number: WOS:000484666200023

PubMed ID: 31490149

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Lindsay, Lucas	C-9221-2012	0000-0001-9645-7993
Hermann, Raphael P	F-6257-2013	0000-0002-6138-5624
May, Andrew	N-7271-2019	0000-0003-0777-8539
Herrmann, Markus	HSB-7417-2023	
Sergeev, Ilya	N-6591-2013	0000-0002-7614-2238
Pandey, Tribhuwan	O-1447-2018	0000-0002-0373-7716
Friese, Karen	M-3833-2017	0000-0002-7262-9217
Herrmann, Markus		0000-0002-1091-491X

ISSN: 0909-0495

eISSN: 1600-5775

Title: KMC Simulation of the Electroforming, Set and Reset Processes in Redox-Based Resistive Switching Devices

Author(s): Abbaspour, E (Abbaspour, Elhameh); Menzel, S (Menzel, Stephan); Hardtdegen, A (Hardtdegen, Alexander); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Jungemann, C (Jungemann, Christoph)

Source: IEEE TRANSACTIONS ON NANOTECHNOLOGY **Volume:** 17 **Issue:** 6 **Pages:** 1181-1188 **DOI:** 10.1109/TNANO.2018.2867904 **Published:** NOV 2018

Accession Number: WOS:000449979300017

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Abbaspour, Elhameh		0000-0002-3704-8150
Jungemann, Christoph		0000-0002-3423-4046

ISSN: 1536-125X

eISSN: 1941-0085

Title: Kinetic cross coupling between nonconserved and conserved fields in phase field models

Author(s): Brener, EA (Brener, Efim A.); Boussinot, G (Boussinot, G.)

Source: PHYSICAL REVIEW E **Volume:** 86 **Issue:** 5 **Article Number:** 060601 **DOI:** 10.1103/PhysRevE.86.060601 **Part:** 1 **Published:** DEC 6 2012

Accession Number: WOS:000312030000001

PubMed ID: 23367883

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Brener, Efim		0000-0003-0472-1297

ISSN: 1539-3755

eISSN: 1550-2376

Title: Studying the switching variability in redox-based resistive switching devices

Author(s): Abbaspour, E (Abbaspour, Elhameh); Menzel, S (Menzel, Stephan); Jungemann, C (Jungemann, Christoph)

Source: JOURNAL OF COMPUTATIONAL ELECTRONICS **Volume:** 19 **Issue:** 4 **Pages:** 1426-1432 **DOI:** 10.1007/s10825-020-01537-y **Early Access Date:** JUN 2020 **Published:** DEC 2020

Accession Number: WOS:000543042300002

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Abbaspour, Elhameh		0000-0002-3704-8150
Jungemann, Christoph		0000-0002-3423-4046

ISSN: 1569-8025

eISSN: 1572-8137

Title: Bulk sensitive hard x-ray photoemission electron microscopy

Author(s): Patt, M (Patt, M.); Wiemann, C (Wiemann, C.); Weber, N (Weber, N.); Escher, M (Escher, M.); Gloskovskii, A (Gloskovskii, A.); Drube, W (Drube, W.); Merkel, M (Merkel, M.); Schneider, CM (Schneider, C. M.)

Source: REVIEW OF SCIENTIFIC INSTRUMENTS **Volume:** 85 **Issue:** 11 **Article Number:** 113704 **DOI:** 10.1063/1.4902141 **Published:** NOV 2014

Accession Number: WOS:000345646000266

PubMed ID: 25430117

Conference Title: 20th Topical Conference on High-Temperature Plasma Diagnostics

Conference Date: JUN 01-05, 2014

Conference Location: Atlanta, GA

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hloskovsky, Andrei	A-3009-2012	
Patt, Marten	I-5206-2015	
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Hloskovsky, Andrei		0000-0002-2291-5207
Drube, Wolfgang		0000-0003-3938-7823
Wiemann, Carsten		0000-0001-6621-3736

ISSN: 0034-6748

eISSN: 1089-7623

Title: Disentanglement of growth dynamic and thermodynamic effects in LaAlO₃/SrTiO₃ heterostructures

Author(s): Xu, CC (Xu, Chencheng); Baumer, C (Baumer, Christoph); Heinen, RA (Heinen, Ronja Anika); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Gunkel, F (Gunkel, Felix); Dittmann, R (Dittmann, Regina)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 22410 **DOI:** 10.1038/srep22410 **Published:** MAR 24 2016

Accession Number: WOS:000372694600001

PubMed ID: 27009359

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Xu, Chencheng	HNS-1645-2023	0000-0003-1942-6901
Baumer, Christoph	AHA-1151-2022	
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 2045-2322

Title: Surface Termination Conversion during SrTiO₃ Thin Film Growth Revealed by X-ray Photoelectron Spectroscopy

Author(s): Baeumer, C (Baeumer, Christoph); Xu, CC (Xu, Chencheng); Gunkel, F (Gunkel, Felix); Raab, N (Raab, Nicolas); Heinen, RA (Heinen, Ronja Anika); Koehl, A (Koehl, Annemarie); Dittmann, R (Dittmann, Regina)

Source: SCIENTIFIC REPORTS **Volume:** 5 **Article Number:** 11829 **DOI:** 10.1038/srep11829 **Published:** JUL 20 2015

Accession Number: WOS:000358169400001

PubMed ID: 26189436

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Baeumer, Christoph	AHA-1151-2022	
Xu, Chencheng	HNS-1645-2023	0000-0003-1942-6901
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 2045-2322

Title: Random Telegraph Noise analysis in Redox-based Resistive Switching Devices Using KMC Simulations
Author(s): Abbaspour, E (Abbaspour, Elhameh); Menzel, S (Menzel, Stephan); Jungemann, C (Jungemann, Christoph)

Book Group Author(s): IEEE

Source: 2017 INTERNATIONAL CONFERENCE ON SIMULATION OF SEMICONDUCTOR PROCESSES AND DEVICES (SISPAD 2017) **Book Series:** International Conference on Simulation of Semiconductor Processes and Devices **Pages:** 313-316 **Published:** 2017

Accession Number: WOS:000426983300078

Conference Title: International Conference on Simulation of Semiconductor Processes and Devices (SISPAD)

Conference Date: SEP 07-09, 2017

Conference Location: Kamakura, JAPAN

Conference Sponsors: Japan Soc Appl Phys, Murata Sci Fdn, Support Ctr Adv Telecommunicat Technol Res, IEEE Electron Devices Soc

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Jungemann, Christoph		0000-0002-3423-4046

ISSN: 1946-1569

ISBN: 978-4-86348-610-2

Title: Investigation of low-confinement surface phonon polariton launching on SiC and SrTiO₃ using scanning near-field optical microscopy

Author(s): Barnett, J (Barnett, J.); Wendland, D (Wendland, D.); Lewin, M (Lewin, M.); Wirth, KG (Wirth, K.

G.); Hessler, A (Hessler, A.); Taubner, T (Taubner, T.)

Source: APPLIED PHYSICS LETTERS **Volume:** 120 **Issue:** 21 **Article Number:** 211107 **DOI:**

10.1063/5.0086767 **Published:** MAY 23 2022

Accession Number: WOS:000804115200012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Lewin, Martin		0000-0003-4036-2252
Wendland, Daniel		0000-0002-4873-5183
Barnett, Julian		0000-0001-7480-1247

ISSN: 0003-6951

eISSN: 1077-3118

Title: Achieving realistic interface kinetics in phase-field models with a diffusional contrast

Author(s): Boussinot, G (Boussinot, G.); Brener, EA (Brener, Efim A.)

Source: PHYSICAL REVIEW E **Volume:** 89 **Issue:** 6 **Article Number:** 060402 **DOI:**

10.1103/PhysRevE.89.060402 **Published:** JUN 30 2014

Accession Number: WOS:000339053600001

PubMed ID: 25019706

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Brener, Efim		0000-0003-0472-1297

ISSN: 1539-3755

eISSN: 1550-2376

Title: Compact modeling of CRS devices based on ECM cells for memory, logic and neuromorphic applications

Author(s): Linn, E (Linn, E.); Menzel, S (Menzel, S.); Ferch, S (Ferch, S.); Waser, R (Waser, R.)

Source: NANOTECHNOLOGY **Volume:** 24 **Issue:** 38 **Special Issue:** SI **Article Number:** 384008 **DOI:**

10.1088/0957-4484/24/38/384008 **Published:** SEP 27 2013

Accession Number: WOS:000324141800011

PubMed ID: 23999250

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 0957-4484

eISSN: 1361-6528

Title: Do dislocations act as atomic autobahns for oxygen in the perovskite oxide SrTiO₃?

Author(s): Metlenko, V (Metlenko, Veronika); Ramadan, AHH (Ramadan, Amr H. H.); Gunkel, F (Gunkel, Felix);

Du, HC (Du, Hongchu); Schraknepper, H (Schraknepper, Henning); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); De Souza, RA (De Souza, Roger A.)

Source: NANOSCALE **Volume:** 6 **Issue:** 21 **Pages:** 12864-12876 **DOI:** 10.1039/c4nr04083j **Published:** 2014

Accession Number: WOS:000344997500080

PubMed ID: 25263456

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Du, Hongchu	L-5603-2014	0000-0002-4661-4644
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2040-3364

eISSN: 2040-3372

Title: Comprehensive modeling of electrochemical metallization memory cells

Author(s): Menzel, S (Menzel, Stephan)

Source: JOURNAL OF COMPUTATIONAL ELECTRONICS **Volume:** 16 **Issue:** 4 **Special Issue:** SI **Pages:** 1017-1037 **DOI:** 10.1007/s10825-017-1051-2 **Published:** DEC 2017

Accession Number: WOS:000417598100005

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 1569-8025

eISSN: 1572-8137

Title: The importance of singly charged oxygen vacancies for electrical conduction in monoclinic HfO₂

Author(s): Mueller, MP (Mueller, Michael P.); Gunkel, F (Gunkel, Felix); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); De Souza, RA (De Souza, Roger A.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 129 **Issue:** 2 **Article Number:** 025104 **DOI:** 10.1063/5.0036024 **Published:** JAN 14 2021

Accession Number: WOS:000608037800004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Mueller, Michael		0000-0003-0399-1869
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X

ISSN: 0021-8979

eISSN: 1089-7550

Title: Resistive switching near electrode interfaces: Estimations by a current model

Author(s): Schroeder, H (Schroeder, Herbert); Zurhelle, A (Zurhelle, Alexander); Stemmer, S (Stemmer, Stefanie); Marchewka, A (Marchewka, Astrid); Waser, R (Waser, Rainer)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 113 **Issue:** 5 **Article Number:** 053716 **DOI:** 10.1063/1.4789944 **Published:** FEB 7 2013

Accession Number: WOS:000314746200045

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Zurhelle, Alexander	C-7316-2016	0000-0002-8179-9605
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Marchewka, Astrid		0000-0002-1576-1684

ISSN: 0021-8979

Title: Overcoming the RESET Limitation in Tantalum Oxide-Based ReRAM Using an Oxygen-Blocking Layer
Author(s): Schonhals, A (Schoenhals, Alexander); Kindsmuller, A (Kindsmueller, Andreas); La Torre, C (La Torre, Camilla); Zhang, H (Zhang, Hehe); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Wouters, DJ (Wouters, Dirk J.)

Book Group Author(s): IEEE

Source: 2017 IEEE 9TH INTERNATIONAL MEMORY WORKSHOP (IMW) **Book Series:** IEEE International Memory Workshop **Pages:** 145-148 **Published:** 2017

Accession Number: WOS:000405189200036

Conference Title: 9th IEEE International Memory Workshop (IMW)

Conference Date: MAY 14-17, 2017

Conference Location: Monterey, CA

Conference Sponsors: IEEE

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Zhang, Hehe	ABE-9886-2021	0000-0002-9346-6808
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 2330-7978

ISBN: 978-1-5090-3274-7

Title: Redox-based memristive devices for new computing paradigm

Author(s): Dittmann, R (Dittmann, R.); Strachan, JP (Strachan, J. P.)

Source: APL MATERIALS **Volume:** 7 **Issue:** 11 **Article Number:** 110903 **DOI:** 10.1063/1.5129101 **Published:** NOV 2019

Accession Number: WOS:000508404700017

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 2166-532X

Title: The influence of interfacial (sub)oxide layers on the properties of pristine resistive switching devices

Author(s): Kindsmuller, A (Kindsmueller, Andreas); Schonhals, A (Schonhals, Alexander); Menzel, S (Menzel, Stephan); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Wouters, DJ (Wouters, Dirk J.)

Book Group Author(s): IEEE

Source: 2018 NON-VOLATILE MEMORY TECHNOLOGY SYMPOSIUM (NVMTS 2018) **Published:** 2018

Accession Number: WOS:000494342800014

Conference Title: Non-Volatile Memory Technology Symposium (NVMTS)

Conference Date: OCT 22-24, 2018

Conference Location: Sendai, JAPAN

Conference Sponsors: Tohoku Univ, CIES, IEEE, Electron Devices Soc, Sendai Tourism, Convent & Int Assoc, Toshiba Memory, TEL

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISBN: 978-1-5386-7783-4

Title: Stability and Decomposition of Perovskite-Type Titanates upon High-Temperature Reduction

Author(s): Rodenbuecher, C (Rodenbuecher, Christian); Meuffels, P (Meuffels, Paul); Speier, W (Speier, Wolfgang); Ermrich, M (Ermrich, Martin); Wrana, D (Wrana, Dominik); Krok, F (Krok, Franciszek); Szot, K (Szot, Kristof)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 11 **Issue:** 9 **Article Number:** 1700222 **DOI:** 10.1002/pssr.201700222 **Published:** SEP 2017

Accession Number: WOS:000410132200009

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wrana, Dominik	AAH-6467-2021	0000-0002-8239-0043
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Krok, Franciszek		0000-0002-6931-3545

ISSN: 1862-6254

eISSN: 1862-6270



Title: Employing Interfaces with Metavalently Bonded Materials for Phonon Scattering and Control of the Thermal Conductivity in TAGS-x Thermoelectric Materials

Author(s): Rodenkirchen, C (Rodenkirchen, Cynthia); Cagnoni, M (Cagnoni, Matteo); Jakobs, S (Jakobs, Stefan); Cheng, YD (Cheng, Yudong); Keutgen, J (Keutgen, Jens); Yu, Y (Yu, Yuan); Wuttig, M (Wuttig, Matthias); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 30 **Issue:** 17 **Article Number:** 1910039 **DOI:** 10.1002/adfm.201910039 **Early Access Date:** FEB 2020 **Published:** APR 2020

Accession Number: WOS:000516844400001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Rodenkirchen, Cynthia		0000-0001-5475-1932
Cojocaru-Miredin, Prof. Oana	M-9985-2016	0000-0001-6543-203X
Cagnoni, Matteo		0000-0003-0599-1715

ISSN: 1616-301X

eISSN: 1616-3028

Title: Metal organic vapor phase epitaxy of Ge₁Sb₂Te₄ thin films on Si(111) substrate

Author(s): Ratajczak, A (Ratajczak, Albert); von der Ahe, M (von der Ahe, Martina); Du, HC (Du, Hongchu); Mussler, G (Mussler, Gregor); Grutzmacher, D (Gruetzmacher, Detlev)

Source: APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING **Volume:** 125 **Issue:** 3 **Article Number:** 163 **DOI:** 10.1007/s00339-019-2465-4 **Published:** MAR 2019

Accession Number: WOS:000457830500009

ISSN: 0947-8396

eISSN: 1432-0630

Title: Caution! Static Supercell Calculations of Defect Migration in Higher Symmetry ABX₃ Perovskite Halides May Be Unreliable: A Case Study of Methylammonium Lead Jodide

Author(s): De Souza, RA (De Souza, Roger A.); Kemp, D (Kemp, Dennis); Wolf, MJ (Wolf, Matthew J.); Ramadan, AHH (Ramadan, Amr H. H.)

Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS **Volume:** 13 **Issue:** 49 **Pages:** 11363-11368 **DOI:** 10.1021/acs.jpcllett.2c02984 **Published:** DEC 15 2022

Accession Number: WOS:000898894900001

PubMed ID: 36454641

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Kemp, Dennis		0000-0003-1237-159X

ISSN: 1948-7185

Title: Nonlinear ion mobility at high electric field strengths in the perovskites SrTiO₃ and CH₃NH₃PbI₃

Author(s): Kemp, D (Kemp, Dennis); De Souza, RA (De Souza, Roger A.)

Source: PHYSICAL REVIEW MATERIALS **Volume:** 5 **Issue:** 10 **Article Number:** 105401 **DOI:** 10.1103/PhysRevMaterials.5.105401 **Published:** OCT 5 2021

Accession Number: WOS:000705599300001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Kemp, Dennis	GYA-4386-2022	0000-0003-1237-159X

ISSN: 2475-9953

Title: Preferred selenium incorporation and unexpected interlayer bonding in the layered structure of Sb₂Te_{3-x}Sex

Author(s): Kuepers, M (Kuepers, Michael); Stoffel, RP (Stoffel, Ralf Peter); Bong, B (Bong, Barbara); Herrmann, MG (Herrmann, Markus G.); Li, ZK (Li, Zikang); Meledin, A (Meledin, Alexander); Mayer, J (Mayer, Joachim); Friese, K (Friese, Karen); Dronskowski, R (Dronskowski, Richard)

Source: ZEITSCHRIFT FUR NATURFORSCHUNG SECTION B-A JOURNAL OF CHEMICAL SCIENCES **Volume:** 75 **Issue:** 1-2 **Special Issue:** SI **Pages:** 41-50 **DOI:** 10.1515/znb-2019-0101 **Published:** FEB 2020

Accession Number: WOS:000513013100006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Meledin, Alexander	C-7524-2016	0000-0002-3200-0553
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Herrmann, Markus	HSB-7417-2023	
Friese, Karen	M-3833-2017	0000-0002-7262-9217
Herrmann, Markus		0000-0002-1091-491X

ISSN: 0932-0776

eISSN: 1865-7117

Title: Stability of Pristine and Defective SnTe Surfaces from First Principles

Author(s): Deringer, VL (Deringer, Volker L.); Dronskowski, R (Dronskowski, Richard) **Source:**

CHEMPHYSICHEM **Volume:** 14 **Issue:** 13 **Special Issue:** SI **Pages:** 3108-3111 **DOI:** 10.1002/cphc.201300265 **Published:** SEP 16 2013

Accession Number: WOS:000324316000032

PubMed ID: 23868325

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278

ISSN: 1439-4235

eISSN: 1439-7641

Title: Search for the Mysterious SiTe-An Examination of the Binary Si-Te System Using First-Principles-Based

Methods

Author(s): Steinberg, S (Steinberg, Simon); Stoffel, RP (Stoffel, Ralf P.); Dronskowski, R (Dronskowski, Richard)

Source: CRYSTAL GROWTH & DESIGN **Volume:** 16 **Issue:** 11 **Pages:** 6152-6155 **DOI:** 10.1021/acs.cgd.6b01163 **Published:** NOV 2016

Accession Number: WOS:000387094600004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Steinberg, Simon	ABF-6457-2020	0000-0001-8022-7018

ISSN: 1528-7483

eISSN: 1528-7505

Title: Point defects in disordered and stable GeSbTe phase-change materials

Author(s): Evang, V (Evang, Valentin); Mazzarello, R (Mazzarello, Riccardo)

Source: MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING **Volume:** 133 **Article Number:** 105948 **DOI:** 10.1016/j.mssp.2021.105948 **Early Access Date:** MAY 2021 **Published:** OCT 2021

Accession Number: WOS:000672622400004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X

ISSN: 1369-8001

eISSN: 1873-4081

Title: Stabilities and Reconstructions of PbTe Crystal Surfaces from Density-Functional Theory

Author(s): Deringer, VL (Deringer, Volker L.); Dronskowski, R (Dronskowski, Richard)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 117 **Issue:** 46 **Pages:** 24455-24461 **DOI:** 10.1021/jp408699a **Published:** NOV 21 2013

Accession Number: WOS:000327557300041

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624

ISSN: 1932-7447

eISSN: 1932-7455

Title: Structural and electronic transitions in Ge₂Sb₂Te₅ induced by ion irradiation damage

Author(s): Privitera, SMS (Privitera, S. M. S.); Mio, AM (Mio, A. M.); Smecca, E (Smecca, E.); Alberti, A (Alberti, A.); Zhang, W (Zhang, W.); Mazzarello, R (Mazzarello, R.); Benke, J (Benke, J.); Persch, C (Persch, C.); La Via, F (La Via, F.); Rimini, E (Rimini, E.)

Source: PHYSICAL REVIEW B **Volume:** 94 **Issue:** 9 **Article Number:** 094103 **DOI:** 10.1103/PhysRevB.94.094103 **Published:** SEP 6 2016

Accession Number: WOS:000382718900002

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Smecca, Emanuele	AA Y-3254-2020	

Alberti, Alessandra	AAJ-6871-2020	0000-0002-4103-6208
La Via, Francesco	O-4099-2019	0000-0002-6842-581X
Xjtu, Campnano	Q-1904-2015	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Mio, Antonio Massimiliano	N-4992-2019	
Smecca, Emanuele	GSN-7501-2022	0000-0002-8946-8640
Smecca, Emanuele	AAL-1400-2021	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
La Via, Francesco	E-8035-2011	0000-0002-6842-581X
Mio, Antonio Massimiliano	Y-4803-2018	0000-0002-8280-5413
Rimini, Emanuele		0000-0003-4994-9471

ISSN: 2469-9950

eISSN: 2469-9969

Title: The Intrinsic Structural Resistance of a Grain Boundary to Transverse Ionic Conduction

Author(s): Genreith-Schriever, AR (Genreith-Schriever, Annalena R.); Parras, JP (Parras, Jana P.); Heelweg, HJ (Heelweg, Henrik J.); De Souza, RA (De Souza, Roger A.)

Source: CHEMELECTROCHEM **Volume:** 7 **Issue:** 23 **Pages:** 4718-4723 **DOI:** 10.1002/celc.202000773 **Early Access Date:** SEP 2020 **Published:** DEC 1 2020

Accession Number: WOS:000567712300001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Parras, Jana P.		0000-0001-8288-5495
Genreith-Schriever, Annalena R.	E-4633-2018	0000-0001-5626-2438

ISSN: 2196-0216

Title: The Orbital Origins of Chemical Bonding in Ge-Sb-Te Phase-Change Materials**

Author(s): Hempelmann, J (Hempelmann, Jan); Muller, PC (Mueller, Peter C.); Ertural, C (Ertural, Christina); Dronskowski, R (Dronskowski, Richard)

Source: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION **Volume:** 61 **Issue:** 17 **Article Number:** e202115778 **DOI:** 10.1002/anie.202115778 **Early Access Date:** FEB 2022 **Published:** APR 19 2022

Accession Number: WOS:000749619400001

PubMed ID: 35007401

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Ertural, Christina	GZH-1097-2022	0000-0002-7696-5824

ISSN: 1433-7851

eISSN: 1521-3773

Title: Cation diffusion in polycrystalline thin films of monoclinic HfO₂ deposited by atomic layer deposition

Author(s): Mueller, MP (Mueller, Michael P.); Pinggen, K (Pinggen, Katrin); Hardtdegen, A (Hardtdegen, Alexander); Aussen, S (Aussen, Stephan); Kindsmueller, A (Kindsmueller, Andreas); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); De Souza, RA (De Souza, Roger A.)

Source: APL MATERIALS **Volume:** 8 **Issue:** 8 **Article Number:** 081104 **DOI:**

10.1063/5.0013965 **Published:** AUG 1 2020

Accession Number: WOS:000560032100002

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Aussen, Stephan		0000-0001-9083-5404
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Mueller, Michael		0000-0003-0399-1869

ISSN: 2166-532X

Title: Atomistic simulations of ion migration in sodium bismuth titanate (NBT) materials: towards superior oxide-ion conductors

Author(s): Zhang, HW (Zhang, Haiwu); Ramadan, AHH (Ramadan, Amr. H. H.); De Souza, RA (De Souza, Roger A.)

Source: JOURNAL OF MATERIALS CHEMISTRY A **Volume:** 6 **Issue:** 19 **Pages:** 9116-9123 **DOI:** 10.1039/c8ta02545b **Published:** MAY 21 2018

Accession Number: WOS:000434625200037

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Haiwu	HJB-2250-2022	
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 2050-7488

eISSN: 2050-7496

Title: Absence of Partial Amorphization in GeSbTe Chalcogenide Superlattices

Author(s): Evang, V (Evang, Valentin); Mazzarello, R (Mazzarello, Riccardo)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 15 **Issue:** 3 **Special Issue:** SI **Article Number:** 2000457 **DOI:** 10.1002/pssr.202000457 **Early Access Date:** NOV 2020 **Published:** MAR 2021

Accession Number: WOS:000587361600001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X

ISSN: 1862-6254

eISSN: 1862-6270

Title: New insights on the GeSexTe1-x phase diagram from theory and experiment

Author(s): Herrmann, MG (Herrmann, Markus Guido); Stoffel, RP (Stoffel, Ralf Peter); Kupers, M (Kuepers, Michael); Haddouch, MA (Haddouch, Mohammed Ait); Eich, A (Eich, Andreas); Glazyrin, K (Glazyrin, Konstantin); Grzechnik, A (Grzechnik, Andrzej); Dronskowski, R (Dronskowski, Richard); Friese, K (Friese, Karen)

Source: ACTA CRYSTALLOGRAPHICA SECTION B-STRUCTURAL SCIENCE CRYSTAL ENGINEERING AND MATERIALS **Volume:** 75 **DOI:** 10.1107/S2052520619001847 **Part:** 2 **Published:** APR 2019 **Accession Number:** WOS:000463912400017

PubMed ID: 32830750

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Herrmann, Markus	HSB-7417-2023	
Friese, Karen	M-3833-2017	0000-0002-7262-9217
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Herrmann, Markus		0000-0002-1091-491X
AIT HADDOUCH, Mohammed		0000-0002-0582-5437

eISSN: 2052-5206

Title: A chemical link between Ge-Sb-Te and In-Sb-Te phase-change materials

Author(s): Deringer, VL (Deringer, Volker L.); Zhang, W (Zhang, Wei); Rausch, P (Rausch, Pascal); Mazzarello, R (Mazzarello, Riccardo); Dronskowski, R (Dronskowski, Richard); Wuttig, M (Wuttig, Matthias)

Source: JOURNAL OF MATERIALS CHEMISTRY C **Volume:** 3 **Issue:** 37 **Pages:** 9519-9523 **DOI:** 10.1039/c5tc02314a **Published:** 2015

Accession Number: WOS:000361551900004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	P-3546-2019	
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
xjtu, campano	Q-1904-2015	
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X

ISSN: 2050-7526

eISSN: 2050-7534

Title: Influence of the local structure in phase-change materials on their dielectric permittivity

Author(s): Shportko, KV (Shportko, Kostiantyn V.); Venger, EF (Venger, Eugen F.)

Source: NANOSCALE RESEARCH LETTERS **Volume:** 10 **Article Number:** 33 **DOI:** 10.1186/s11671-015-0735-4 **Published:** FEB 5 2015

Accession Number: WOS:000350564700001

PubMed ID: 25852330

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Shportko, Kostiantyn		0000-0001-6813-4871

ISSN: 1931-7573

eISSN: 1556-276X

Title: Understanding Oxygen-Vacancy Migration in the Fluorite Oxide CeO₂: An Ab Initio Study of Impurity-Anion Migration

Author(s): Genreith-Schriever, AR (Genreith-Schriever, Annalena R.); Hebbeker, P (Hebbeker, Pascal); Hinterberg, J (Hinterberg, Judith); Zacherle, T (Zacherle, Tobias); De Souza, RA (De Souza, Roger A.)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 119 **Issue:** 51 **Pages:** 28269-28275 **DOI:** 10.1021/acs.jpcc.5b07813 **Published:** DEC 24 2015

Accession Number: WOS:000367561700004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Genreith-Schriever, Annalena R.	E-4633-2018	0000-0001-5626-2438
Hebbeker, Pascal	AAC-4208-2020	0000-0003-0754-103X
Hebbeker, Pascal	I-4274-2016	0000-0003-0754-103X
Hinterberg, Judith		0000-0002-0347-3319

ISSN: 1932-7447

Title: Uncovering beta-relaxations in amorphous phase-change materials

Author(s): Peng, X (Peng, Xu); Cheng, YD (Cheng, Yudong); Pries, J (Pries, Julian); Wei, S (Wei, Shuai); Yu, HB (Yu, Hai-Bin); Wuttig, M (Wuttig, Matthias)

Source: SCIENCE ADVANCES **Volume:** 6 **Issue:** 2 **Article Number:** eaay6726 **DOI:** 10.1126/sciadv.aay6726 **Published:** JAN 2020

Accession Number: WOS:000507557500026

PubMed ID: 31950085

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wei, Shuai	I-7469-2018	0000-0003-3051-2480
Wuttig, Matthias		0000-0003-1498-1025
Yu, Hai-Bin	E-5312-2010	0000-0003-0645-0187
Peng, Si-Xu		0000-0002-7881-6945
Cheng, Yudong		0000-0003-4299-5264

ISSN: 2375-2548

Title: Finite-size versus interface-proximity effects in thin-film epitaxial SrTiO₃

Author(s): De Souza, RA (De Souza, R. A.); Gunkel, F (Gunkel, F.); Hoffmann-Eifert, S (Hoffmann-Eifert, S.); Dittmann, R (Dittmann, R.)

Source: PHYSICAL REVIEW B **Volume:** 89 **Issue:** 24 **Article Number:** 241401 **DOI:** 10.1103/PhysRevB.89.241401 **Published:** JUN 4 2014

Accession Number: WOS:000336917700001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 1098-0121

eISSN: 1550-235X

Title: The phase stability of Ca₂TiO₄ and related Ruddlesden-Popper phases

Author(s): Ramadan, AHH (Ramadan, Amr H. H.); Hesselmann, L (Hesselmann, Linda); De Souza, RA (De Souza, Roger A.)

Source: JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS **Volume:** 86 **Pages:** 90-94 **DOI:** 10.1016/j.jpcs.2015.06.022 **Published:** NOV 2015

Accession Number: WOS:000360864600013

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 0022-3697

eISSN: 1879-2553

Title: Crystallization Properties of the Ge₂Sb₂Te₅ Phase-Change Compound from Advanced Simulations

Author(s): Ronneberger, I (Ronneberger, Ider); Zhang, W (Zhang, Wei); Eshet, H (Eshet, Hagai); Mazzarello, R (Mazzarello, Riccardo)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 25 **Issue:** 40 **Special Issue:** SI **Pages:** 6407-6413 **DOI:** 10.1002/adfm.201500849 **Published:** OCT 2015

Accession Number: WOS:000363685900012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
Ronneberger, Ider	Q-9555-2017	0000-0003-4674-5254

ISSN: 1616-301X

eISSN: 1616-3028

Title: Forming-Free Metal-Oxide ReRAM by Oxygen Ion Implantation Process

Author(s): Kim, W (Kim, Wonjoo); Hardtdegen, A (Hardtdegen, Alexander); Rodenbuecher, C (Rodenbuecher, Christian); Menzel, S (Menzel, Stephan); Wouters, DJ (Wouters, Dirk J.); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Buca, D (Buca, Dan); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Book Group Author(s): IEEE

Source: 2016 IEEE INTERNATIONAL ELECTRON DEVICES MEETING (IEDM) **Book Series:** IEEE International Electron Devices Meeting **Article Number:** 4.4 **Published:** 2016

Accession Number: WOS:000399108800020

Conference Title: 62nd Annual IEEE International Electron Devices Meeting (IEDM)

Conference Date: DEC 03-07, 2016

Conference Location: San Francisco, CA

Conference Sponsors: IEEE, IEEE Electron Devices Soc

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Buca, Dan	AAI-8424-2021	0000-0002-3692-5596
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 2380-9248

ISBN: 978-1-5090-3902-9

Title: Thermal effects on the I-V characteristics of filamentary VCM based ReRAM-cells using a nanometer-sized heater

Author(s): von Witzleben, M (von Witzleben, M.); Wichmann, E (Wichmann, E.); Funck, C (Funck, C.); Fleck, K (Fleck, K.); Waser, R (Waser, R.); Bottger, U (Boettger, U.); Breuer, T (Breuer, T.); Menzel, S (Menzel, S.)

Book Group Author(s): IEEE

Source: 2017 17TH NON-VOLATILE MEMORY TECHNOLOGY SYMPOSIUM (NVMTS) **Published:** 2017

Accession Number: WOS:000426605900014

Conference Title: 17th Non-Volatile Memory Technology Symposium (NVMTS)

Conference Date: AUG 30-SEP 01, 2017

Conference Location: Aachen, GERMANY

Conference Sponsors: RWTH Aachen Univ, Inst Phys Phys New Mat, JULICH, IEEE Elect Devices Soc, IEEE

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
von Witzleben, Moritz		0000-0002-1350-7092

ISBN: 978-1-5386-0477-9

Title: Vibrational properties and bonding nature of Sb₂Se₃ and their implications for chalcogenide materials

Author(s): Deringer, VL (Deringer, Volker L.); Stoffel, RP (Stoffel, Ralf P.); Wuttig, M (Wuttig, Matthias); Dronskowski, R (Dronskowski, Richard)

Source: CHEMICAL SCIENCE **Volume:** 6 **Issue:** 9 **Pages:** 5255-5262 **DOI:** 10.1039/c5sc00825e **Published:** 2015

Accession Number: WOS:000359214100020

PubMed ID: 29449929

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025

ISSN: 2041-6520

eISSN: 2041-6539

Title: How fragility makes phase-change data storage robust: insights from ab initio simulations

Author(s): Zhang, W (Zhang, Wei); Ronneberger, I (Ronneberger, Ider); Zalden, P (Zalden, Peter); Xu, M (Xu, Ming); Salinga, M (Salinga, Martin); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo)

Source: SCIENTIFIC REPORTS **Volume:** 4 **Article Number:** 6529 **DOI:** 10.1038/srep06529 **Published:** OCT 6 2014

Accession Number: WOS:000342907100011

PubMed ID: 25284316

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Xu, Ming	E-2188-2015	0000-0002-2730-283X
Zhang, Wei	P-3546-2019	
Xu, Meng	HJY-7139-2023	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Xu, Ming	ABH-4095-2020	0000-0002-2730-283X
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Salinga, Martin S	B-6796-2011	0000-0002-2228-6244
Zalden, Peter		0000-0002-8530-0576

Ronneberger, Ider	Q-9555-2017	0000-0003-4674-5254
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ISSN: 2045-2322

Title: Effects of stoichiometry on the transport properties of crystalline phase-change materials

Author(s): Zhang, W (Zhang, Wei); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo) **Source:** SCIENTIFIC REPORTS **Volume:** 5 **Article Number:** 13496 **DOI:** 10.1038/srep13496 **Published:** SEP 3 2015

Accession Number: WOS:000360534600001

PubMed ID: 26333869

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	P-3546-2019	
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 2045-2322

Title: Bonding Nature of Local Structural Motifs in Amorphous GeTe

Author(s): Deringer, VL (Deringer, Volker L.); Zhang, W (Zhang, Wei); Lumeij, M (Lumeij, Marck); Maintz, S (Maintz, Stefan); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo); Dronskowski, R (Dronskowski, Richard)

Source: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION **Volume:** 53 **Issue:** 40 **Pages:** 10817-10820 **DOI:** 10.1002/anie.201404223 **Published:** SEP 26 2014

Accession Number: WOS:000342761500048

PubMed ID: 25044627

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X

ISSN: 1433-7851

eISSN: 1521-3773

Title: Effects of a magnetic Fe monolayer on the structural and surface electronic properties of Sb₂Te₃

Author(s): Hajiheidari, F (Hajiheidari, Farideh); Zhang, W (Zhang, Wei); Mazzarello, R (Mazzarello, Riccardo)

Source: PHYSICAL REVIEW B **Volume:** 94 **Issue:** 12 **Article Number:** 125421 **DOI:** 10.1103/PhysRevB.94.125421 **Published:** SEP 15 2016

Accession Number: WOS:000383147000005

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
xjtu, campano	Q-1904-2015	

Zhang, Wei	I-3541-2012	0000-0002-0720-4781
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ISSN: 2469-9950

eISSN: 2469-9969

Title: Magnetic Properties of Crystalline and Amorphous Phase-Change Materials Doped with 3d Impurities

Author(s): Zhang, W (Zhang, Wei); Ronneberger, I (Ronneberger, Ider); Li, Y (Li, Yan); Mazzarello, R (Mazzarello, Riccardo)

Source: ADVANCED MATERIALS **Volume:** 24 **Issue:** 32 **Pages:** 4387-4391 **DOI:**

10.1002/adma.201201507 **Published:** AUG 22 2012

Accession Number: WOS:000307438700006

PubMed ID: 22753225

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
Ronneberger, Ider	Q-9555-2017	0000-0003-4674-5254

ISSN: 0935-9648

eISSN: 1521-4095

Title: Ab Initio Investigation of Crystalline and Amorphous GeTe Doped with Magnetic Impurities

Author(s): Zhang, W (Zhang, W.); Ronneberger, I (Ronneberger, I.); Li, Y (Li, Y.); Mazzarello, R (Mazzarello, R.)

Source: SCIENCE OF ADVANCED MATERIALS **Volume:** 6 **Issue:** 7 **Pages:** 1655-1658 **DOI:**

10.1166/sam.2014.1938 **Published:** JUL 2014

Accession Number: WOS:000338125200056

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
Ronneberger, Ider	Q-9555-2017	0000-0003-4674-5254

ISSN: 1947-2935

eISSN: 1947-2943

Title: Improvement of SET variability in TaOx based resistive RAM devices

Author(s): Schonhals, A (Schonhals, Alexander); Waser, R (Waser, Rainer); Wouters, DJ (Wouters, Dirk J.)

Source: NANOTECHNOLOGY **Volume:** 28 **Issue:** 46 **Article Number:** 465203 **DOI:**

10.1088/1361-6528/aa8f89 **Published:** NOV 17 2017

Accession Number: WOS:000413574200001

PubMed ID: 29059050

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Schonhals, Alexander		0000-0003-0118-6321

ISSN: 0957-4484
eISSN: 1361-6528

Title: Resistive Switching of a Quasi-Homogeneous Distribution of Filaments Generated at Heat-Treated TiO₂ (110)-Surfaces

Author(s): Rogala, M (Rogala, Maciej); Bihlmayer, G (Bihlmayer, Gustav); Speier, W (Speier, Wolfgang); Klusek, Z (Klusek, Zbigniew); Rodenbuecher, C (Rodenbuecher, Christian); Szot, K (Szot, Krzysztof)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 25 **Issue:** 40 **Special Issue:** SI **Pages:** 6382-6389 **DOI:** 10.1002/adfm.201500855 **Published:** OCT 2015

Accession Number: WOS:000363685900009

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Rogala, Maciej		0000-0002-7898-5087
Speier, Wolfgang		0000-0002-3900-6931

ISSN: 1616-301X

eISSN: 1616-3028

Title: Multi-valued and Fuzzy Logic Realization using TaO_x Memristive Devices

Author(s): Bhattacharjee, D (Bhattacharjee, Debjyoti); Kim, W (Kim, Wonjoo); Chattopadhyay, A (Chattopadhyay, Anupam); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Source: SCIENTIFIC REPORTS **Volume:** 8 **Article Number:** 8 **DOI:** 10.1038/s41598-017-18329-3 **Published:** JAN 8 2018

Accession Number: WOS:000419441300008

PubMed ID: 29311689

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
BHATTACHARJEE, DEBJYOTI	W-6287-2019	
Rana, Vikas	GLV-5735-2022	
BHATTACHARJEE, DEBJYOTI		0000-0001-6561-8934

ISSN: 2045-2322

Title: Resistive Switching of Sub-10 nm TiO₂ Nanoparticle Self-Assembled Monolayers

Author(s): Schmidt, DO (Schmidt, Dirk Oliver); Raab, N (Raab, Nicolas); Noyong, M (Noyong, Michael); Santhanam, V (Santhanam, Venugopal); Dittmann, R (Dittmann, Regina); Simon, U (Simon, Ulrich)

Source: NANOMATERIALS **Volume:** 7 **Issue:** 11 **Article Number:** 370 **DOI:** 10.3390/nano7110370 **Published:** NOV 2017

Accession Number: WOS:000416783800025

PubMed ID: 29113050

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Santhanam, Venugopal	T-6965-2019	
Simon, Ulrich	K-7737-2013	0000-0002-6118-0573

Noyong, Michael	I-6207-2016	0000-0002-3148-1084
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 2079-4991

Title: Thermally Controlled Charge-Carrier Transitions in Disordered PbSbTe Chalcogenides

Author(s): Evang, V (Evang, Valentin); Reindl, J (Reindl, Johannes); Schafer, L (Schaefer, Lisa); Rochotzki, A (Rochotzki, Alexander); Pletzer-Zelgert, P (Pletzer-Zelgert, Pauline); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo)

Source: ADVANCED MATERIALS **Volume:** 34 **Issue:** 3 **Article Number:** 2106868 **DOI:**

10.1002/adma.202106868 **Early Access Date:** NOV 2021 **Published:** JAN 2022

Accession Number: WOS:000720268300001

PubMed ID: 34750901

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 0935-9648

eISSN: 1521-4095

Title: Role of vacancies in metal-insulator transitions of crystalline phase-change materials

Author(s): Zhang, W (Zhang, W.); Thiess, A (Thiess, A.); Zalden, P (Zalden, P.); Zeller, R (Zeller, R.); Dederichs, PH (Dederichs, P. H.); Raty, JY (Raty, J-Y.); Wuttig, M (Wuttig, M.); Blugel, S (Bluegel, S.); Mazzarello, R (Mazzarello, R.)

Source: NATURE MATERIALS **Volume:** 11 **Issue:** 11 **Pages:** 952-956 **DOI:**

10.1038/NMAT3456 **Published:** NOV 2012

Accession Number: WOS:000310434600019

PubMed ID: 23064498

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zeller, Rudolf	K-7094-2013	0000-0002-9462-2649
Blügel, Stefan	J-8323-2013	0000-0001-9987-4733
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zalden, Peter		0000-0002-8530-0576

ISSN: 1476-1122

eISSN: 1476-4660

Title: Computational Study of Oxygen Diffusion along a[100] Dislocations in the Perovskite Oxide SrTiO₃

Author(s): Waldow, SP (Waldow, Stephan P.); De Souza, RA (De Souza, Roger A.)

Source: ACS APPLIED MATERIALS & INTERFACES **Volume:** 8 **Issue:** 19 **Pages:** 12246-12256 **DOI:**

10.1021/acsami.5b12574 **Published:** MAY 18 2016

Accession Number: WOS:000376330800040

PubMed ID: 27121113

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 1944-8244

eISSN: 1944-8252

Title: Classification of properties and their relation to chemical bonding: Essential steps toward the inverse design of functional materials

Author(s): Schein, CF (Schein, Carl -Friedrich); van Bergerem, S (van Bergerem, Steffen); Mattes, C (Mattes, Christian); Yadav, A (Yadav, Aakash); Grohe, M (Grohe, Martin); Kobbelt, L (Kobbelt, Leif); Wuttig, M (Wuttig, Matthias)

Source: SCIENCE ADVANCES **Volume:** 8 **Issue:** 47 **Article Number:** eade0828 **Published:** NOV 23 2022

Accession Number: WOS:000950622600001

ISSN: 2375-2548

Title: Ab initio lattice dynamics and thermochemistry of layered bismuth telluride (Bi₂Te₃)

Author(s): Zurhelle, AF (Zurhelle, Alexander F.); Deringer, VL (Deringer, Volker L.); Stoffel, RP (Stoffel, Ralf P.); Dronskowski, R (Dronskowski, Richard)

Source: JOURNAL OF PHYSICS-CONDENSED MATTER **Volume:** 28 **Issue:** 11 **Article Number:** 115401

DOI: 10.1088/0953-8984/28/11/115401 **Published:** MAR 23 2016

Accession Number: WOS:000370733400010

PubMed ID: 26894844

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Zurhelle, Alexander	C-7316-2016	0000-0002-8179-9605

ISSN: 0953-8984

eISSN: 1361-648X

Title: Thermoelectric Performance of IV-VI Compounds with Octahedral-Like Coordination: A Chemical-Bonding Perspective

Author(s): Cagnoni, M (Cagnoni, Matteo); Fuhren, D (Fuehren, Daniel); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **Volume:** 30 **Issue:** 33 **Article Number:** 1801787 **DOI:**

10.1002/adma.201801787 **Published:** AUG 16 2018

Accession Number: WOS:000441411500020

PubMed ID: 29975431

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Cagnoni, Matteo		0000-0003-0599-1715

ISSN: 0935-9648

eISSN: 1521-4095

Title: Multistate Memristive Tantalum Oxide Devices for Ternary Arithmetic

Author(s): Kim, W (Kim, Wonjoo); Chattopadhyay, A (Chattopadhyay, Anupam); Siemon, A (Siemon, Anne);

Linn, E (Linn, Eike); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 36652 **DOI:** 10.1038/srep36652 **Published:** NOV 11 2016

Accession Number: WOS:000387589000001

PubMed ID: 27834352

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2045-2322

Title: Switching between Crystallization from the Glassy and the Undercooled Liquid Phase in Phase Change Material Ge₂Sb₂Te₅

Author(s): Pries, J (Pries, Julian); Wei, S (Wei, Shuai); Wuttig, M (Wuttig, Matthias); Lucas, P (Lucas, Pierre)

Source: ADVANCED MATERIALS **Volume:** 31 **Issue:** 39 **Article Number:** 1900784 **DOI:** 10.1002/adma.201900784 **Early Access Date:** AUG 2019 **Published:** SEP 2019

Accession Number: WOS:000479612900001

PubMed ID: 31385632

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wei, Shuai	I-7469-2018	0000-0003-3051-2480
Wuttig, Matthias		0000-0003-1498-1025
Pries, Julian		0000-0002-5978-8213

ISSN: 0935-9648

eISSN: 1521-4095

Title: Kinetic Monte Carlo simulations of ionic conductivity in oxygen ion conductors

Author(s): Hein, P (Hein, Philipp); Grope, BOH (Grope, Benjamin O. H.); Koettgen, J (Koettgen, Julius); Grieshammer, S (Grieshammer, Steffen); Martin, M (Martin, Manfred)

Source: MATERIALS CHEMISTRY AND PHYSICS **Volume:** 257 **Article Number:** 123767 **DOI:** 10.1016/j.matchemphys.2020.123767 **Published:** JAN 1 2021

Accession Number: WOS:000583335900052

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Martin, Manfred	V-3592-2017	0000-0001-9046-050X
Neitzel-Grieshammer, Steffen	D-7040-2018	0000-0001-7583-6417

ISSN: 0254-0584

eISSN: 1879-3312

Title: Behavior of oxygen vacancies in single-crystal SrTiO₃: Equilibrium distribution and diffusion kinetics

Author(s): De Souza, RA (De Souza, Roger A.); Metlenko, V (Metlenko, Veronika); Park, D (Park, Daesung); Weirich, TE (Weirich, Thomas E.)

Source: PHYSICAL REVIEW B **Volume:** 85 **Issue:** 17 **Article Number:** 174109 **DOI:** 10.1103/PhysRevB.85.174109 **Published:** MAY 24 2012

Accession Number: WOS:000304391900001

Author Identifiers:

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Author	Web of Science ResearcherID	ORCID Number
Weirich, Thomas E.	M-1604-2016	0000-0001-5539-0534
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 1098-0121

Title: Ab initio analysis of the defect structure of ceria

Author(s): Zacherle, T (Zacherle, T.); Schriever, A (Schriever, A.); De Souza, RA (De Souza, R. A.); Martin, M (Martin, M.)

Source: PHYSICAL REVIEW B **Volume:** 87 **Issue:** 13 **Article Number:** 134104 **DOI:** 10.1103/PhysRevB.87.134104 **Published:** APR 15 2013

Accession Number: WOS:000317586700001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Martin, Manfred	V-3592-2017	0000-0001-9046-050X
Genreith-Schriever, Annalena R.	E-4633-2018	0000-0001-5626-2438
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 2469-9950

eISSN: 2469-9969

Title: Orbital mixing in solids as a descriptor for materials mapping

Author(s): Esser, M (Esser, Marc); Deringer, VL (Deringer, Volker L.); Wuttig, M (Wuttig, Matthias); Dronskowski, R (Dronskowski, Richard)

Source: SOLID STATE COMMUNICATIONS **Volume:** 203 **Pages:** 31-34 **DOI:** 10.1016/j.ssc.2014.11.008 **Published:** FEB 2015

Accession Number: WOS:000347035400007

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025

ISSN: 0038-1098

eISSN: 1879-2766

Title: Role of grain boundaries in Ge-Sb-Te based chalcogenide superlattices

Author(s): Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Hollermann, H (Hollermann, Henning); Mio, AM (Mio, Antonio M.); Wang, AYT (Wang, Anthony Yu-Tung); Wuttig, M (Wuttig, Matthias)

Source: JOURNAL OF PHYSICS-CONDENSED MATTER **Volume:** 31 **Issue:** 20 **Article Number:** 204002 **DOI:** 10.1088/1361-648X/ab078b **Published:** MAY 22 2019

Accession Number: WOS:000462053300001

PubMed ID: 30769332

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wang, Anthony	H-1297-2017	0000-0002-7947-0309
Mio, Antonio Massimiliano	N-4992-2019	
Hollermann, Henning	T-4407-2017	0000-0003-4992-7037
Wang, Anthony	GSD-5456-2022	

Cojocaru-Miredin, Oana	M-9985-2016	0000-0001-6543-203X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Mio, Antonio Massimiliano	Y-4803-2018	0000-0002-8280-5413

ISSN: 0953-8984

eISSN: 1361-648X

Title: A density-functional study on the electronic and vibrational properties of layered antimony telluride

Author(s): Stoffel, RP (Stoffel, Ralf P.); Deringer, VL (Deringer, Volker L.); Simon, RE (Simon, Ronnie E.); Hermann, RP (Hermann, Raphael P.); Dronskowski, R (Dronskowski, Richard)

Source: JOURNAL OF PHYSICS-CONDENSED MATTER **Volume:** 27 **Issue:** 8 **Article Number:** 085402 **DOI:** 10.1088/0953-8984/27/8/085402 **Published:** MAR 4 2015

Accession Number: WOS:000349605300010

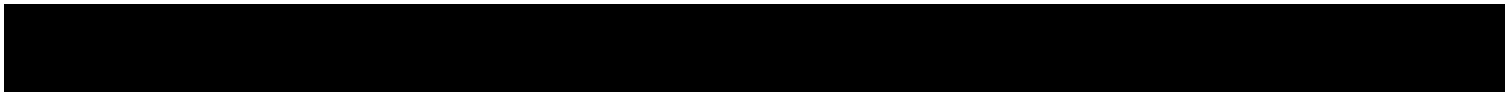
PubMed ID: 25662735

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Hermann, Raphael P	F-6257-2013	0000-0002-6138-5624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278

ISSN: 0953-8984

eISSN: 1361-648X



Title: Phase-Change and Redox-Based Resistive Switching Memories
Author(s): Wouters, DJ (Wouters, Dirk J.); Waser, R (Waser, Rainer); Wuttig, M (Wuttig, Matthias) **Source:** PROCEEDINGS OF THE IEEE **Volume:** 103 **Issue:** 8 **Special Issue:** SI **Pages:** 1274-1288 **DOI:** 10.1109/JPROC.2015.2433311 **Published:** AUG 2015
Accession Number: WOS:000358243500004
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0018-9219
eISSN: 1558-2256

Title: Ordering of Oxygen Vacancies and Related Ferroelectric Properties in HfO₂-delta
Author(s): Rushchanskii, KZ (Rushchanskii, Konstantin Z.); Blugel, S (Bluegel, Stefan); Lezaic, M (Lezaic, Marjana)
Source: PHYSICAL REVIEW LETTERS **Volume:** 127 **Issue:** 8 **Article Number:** 087602 **DOI:** 10.1103/PhysRevLett.127.087602 **Published:** AUG 20 2021
Accession Number: WOS:000686914800016
PubMed ID: 34477424
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rushchanskii, Konstantin Z	B-3276-2008	
Rushchanskii, Konstantin		0000-0003-3070-5725

ISSN: 0031-9007
eISSN: 1079-7114

Title: 3-Bit Multilevel Switching by Deep Reset Phenomenon in Pt/W/TaOX/Pt-ReRAM Devices
Author(s): Kim, W (Kim, W.); Menzel, S (Menzel, S.); Wouters, DJ (Wouters, D. J.); Waser, R (Waser, R.); Rana, V (Rana, V.)
Source: IEEE ELECTRON DEVICE LETTERS **Volume:** 37 **Issue:** 5 **Pages:** 564-567 **DOI:** 10.1109/LED.2016.2542879 **Published:** MAY 2016
Accession Number: WOS:000374868300010
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0741-3106
eISSN: 1558-0563

Title: Forming-free Mott-oxide threshold selector nanodevice showing s-type NDR with high endurance (> 10(12) cycles), excellent V_{th} stability (<5%), fast (< 10 ns) switching, and promising scaling properties

Author(s): Hennen, T (Hennen, T.); Bedau, D (Bedau, D.); Rupp, JAJ (Rupp, J. A. J.); Funck, C (Funck, C.); Menzel, S (Menzel, S.); Grobis, M (Grobis, M.); Waser, R (Waser, R.); Wouters, DJ (Wouters, D. J.)

Book Group Author(s): IEEE

Source: 2018 IEEE INTERNATIONAL ELECTRON DEVICES MEETING (IEDM) **Book Series:** IEEE International Electron Devices Meeting **Published:** 2018

Accession Number: WOS:000459882300138

Conference Title: 64th IEEE Annual International Electron Devices Meeting (IEDM)

Conference Date: DEC 01-05, 2018

Conference Location: San Francisco, CA

Conference Sponsors: IEEE, IEEE Electron Devices Soc

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Bedau, Daniel		0000-0002-2141-3512

ISSN: 2380-9248

ISBN: 978-1-7281-1987-8

Title: Moisture Effect on the Threshold Switching of TOPO-Stabilized Sub-10 nm HfO₂ Nanocrystals in Nanoscale Devices

Author(s): Maiti, S (Maiti, Sonam); Ohlerth, T (Ohlerth, Thorsten); Schmidt, N (Schmidt, Niclas); Aussen, S (Aussen, Stephan); Waser, R (Waser, Rainer); Simon, U (Simon, Ulrich); Karthaus, S (Karthaeuser, Silvia)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 126 **Issue:** 43 **Pages:** 18571-18579 **DOI:** 10.1021/acs.jpcc.2c06303 **Early Access Date:** OCT 2022 **Published:** NOV 3 2022

Accession Number: WOS:000877343500001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Aussen, Stephan		0000-0001-9083-5404
Simon, Ulrich	K-7737-2013	0000-0002-6118-0573
Ohlerth, Thorsten		0000-0002-2169-8765

ISSN: 1932-7447

eISSN: 1932-7455

Title: Switching Speed Analysis and Controlled Oscillatory Behavior of a Cr-doped V₂O₃ Threshold Switching Device for Memory Selector and Neuromorphic Computing Application

Author(s): Hennen, T (Hennen, T.); Bedau, D (Bedau, D.); Rupp, JAJ (Rupp, J. A. J.); Funck, C (Funck, C.); Menzel, S (Menzel, S.); Grobis, M (Grobis, M.); Waser, R (Waser, R.); Wouters, DJ (Wouters, D. J.)

Book Group Author(s): IEEE

Source: 2019 IEEE 11TH INTERNATIONAL MEMORY WORKSHOP (IMW 2019) **Book Series:** IEEE International Memory Workshop **Pages:** 44-47 **Published:** 2019

Accession Number: WOS:000481647000012

Conference Title: IEEE 11th International Memory Workshop (IMW)

Conference Date: MAY 12-15, 2019

Conference Location: Monterey, CA

Conference Sponsors: IEEE, Appl Mat, SK Hynix, Western Digital, Huawei, Intel, Micron, ST, Toshiba Memory, Cypress, Sony, Tokyo Electron, SST, MXIC, Floadia, Electron Devices Soc

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Bedau, Daniel		0000-0002-2141-3512

ISSN: 2330-7978

ISBN: 978-1-7281-0981-7

Title: Volatile HRS asymmetry and subloops in resistive switching oxides

Author(s): La Torre, C (La Torre, Camilla); Kindsmuller, A (Kindsmueller, Andreas); Wouters, DJ (Wouters, Dirk J.); Graves, CE (Graves, Catherine E.); Gibson, GA (Gibson, Gary A.); Strachan, JP (Strachan, John Paul); Williams, RS (Williams, R. Stanley); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: NANOSCALE **Volume:** 9 **Issue:** 38 **Pages:** 14414-14422 **DOI:** 10.1039/c7nr04896c **Published:** OCT 14 2017

Accession Number: WOS:000412407300014

PubMed ID: 28920125

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Williams, R. Stanley	A-8281-2009	0000-0003-0213-4259
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Strachan, John Paul	AAD-1240-2020	0000-0002-1382-3677
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Graves, Catherine		0000-0002-0907-583X

ISSN: 2040-3364

eISSN: 2040-3372

Title: Crossover From Deterministic to Stochastic Nature of Resistive-Switching Statistics in a Tantalum Oxide Thin Film

Author(s): Nishi, Y (Nishi, Yoshifumi); Bottger, U (Boettger, Ulrich); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON ELECTRON DEVICES **Volume:** 65 **Issue:** 10 **Pages:** 4320-4325 **DOI:** 10.1109/TED.2018.2866127 **Published:** OCT 2018

Accession Number: WOS:000445239700038

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0018-9383

eISSN: 1557-9646

Title: Insulator-to-metal transition of SrTiO₃:Nb single crystal surfaces induced by Ar⁺ bombardment

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Wicklein, S (Wicklein, S.); Waser, R (Waser, R.); Szot, K (Szot, K.)

Source: APPLIED PHYSICS LETTERS **Volume:** 102 **Issue:** 10 **Article Number:** 101603 **DOI:**

10.1063/1.4795611 **Published:** MAR 11 2013

Accession Number: WOS:000316501200017

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Szot, Kristof/Krzysztof	K-5441-2013	0000-0001-8773-2754
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0003-6951

eISSN: 1077-3118

Title: Nonlinearity analysis of TaOx redox-based RRAM

Author(s): Kim, W (Kim, Wonjoo); Rosgen, B (Roesgen, Bernd); Breuer, T (Breuer, Thomas); Menzel, S (Menzel, Stephan); Wouters, D (Wouters, Dirk); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Source: MICROELECTRONIC ENGINEERING **Volume:** 154 **Pages:** 38-41 **DOI:**

10.1016/j.mee.2016.01.025 **Published:** MAR 25 2016

Accession Number: WOS:000378363400007

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Breuer, Thomas		0000-0001-6995-9226

ISSN: 0167-9317

eISSN: 1873-5568

Title: Dendritic cells as gatekeepers of tolerance

Author(s): Waisman, A (Waisman, Ari); Lukas, D (Lukas, Dominika); Clausen, BE (Clausen, Bjoern E.); Yogev, N (Yogev, Nir)

Source: SEMINARS IN IMMUNOPATHOLOGY **Volume:** 39 **Issue:** 2 **Pages:** 153-163 **DOI:** 10.1007/s00281-016-0583-z **Published:** FEB 2017

Accession Number: WOS:000394316100007

PubMed ID: 27456849

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
CLAUSEN, Björn Erik	A-8229-2010	0000-0002-2484-7842
Waisman, Ari	C-7383-2015	0000-0003-4304-8234

ISSN: 1863-2297

eISSN: 1863-2300

Title: Effect of RESET Voltage on Distribution of SET Switching Time of Bipolar Resistive Switching in a Tantalum Oxide Thin Film

Author(s): Nishi, Y (Nishi, Yoshifumi); Fleck, K (Fleck, Karsten); Bottger, U (Boettger, Ulrich); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON ELECTRON DEVICES **Volume:** 62 **Issue:** 5 **Pages:** 1561-1567 **DOI:** 10.1109/TED.2015.2411748 **Published:** MAY 2015

Accession Number: WOS:000353564600029

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0018-9383

eISSN: 1557-9646

Title: Complex behaviour of vacancy point-defects in SrRuO₃ thin films

Author(s): Schraknepper, H (Schraknepper, Henning); Baumer, C (Baeumer, Christoph); Dittmann, R (Dittmann, Regina); De Souza, RA (De Souza, Roger A.)

Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS **Volume:** 17 **Issue:** 2 **Pages:** 1060-1069 **DOI:** 10.1039/c4cp03632h **Published:** 2015

Accession Number: WOS:000346236000039

PubMed ID: 25413988

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Baeumer, Christoph	AHA-1151-2022	
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 1463-9076

eISSN: 1463-9084

Title: Characterization of HfO₂/TiO_x ReRAM Cells in Pulse Operation Mode

Author(s): Hardtdegen, A (Hardtdegen, A.); Cuppers, F (Cueppers, F.); von Witzleben, M (von Witzleben, M.); Bottger, U (Boettger, U.); Menzel, S (Menzel, S.); Waser, R (Waser, R.); Hoffmann-Eifert, S (Hoffmann-Eifert, S.)

Book Group Author(s): IEEE

Source: 2018 IEEE 18TH INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY (IEEE-NANO) **Book Series:** IEEE International Conference on Nanotechnology **Published:** 2018

Accession Number: WOS:000458785600095

Conference Title: 18th IEEE International Conference on Nanotechnology (IEEE-NANO)

Conference Date: JUL 23-26, 2018

Conference Location: Tyndall Natl Inst, Cork, IRELAND

Conference Sponsors: IEEE, Univ Coll Cork, Sci Fdn Ireland

Conference Host: Tyndall Natl Inst

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 1944-9399

eISSN: 1944-9380

ISBN: 978-1-5386-5336-4

Title: In-Gap States of HfO₂ Nanoislands Driven by Crystal Nucleation: Implications for Resistive Random-Access Memory Devices

Author(s): Schmidt, N (Schmidt, Niclas); Rushchanskii, KZ (Rushchanskii, Konstantin Z.); Trstenjak, U (Trstenjak, Urska); Dittmann, R (Dittmann, Regina); Karthaeuser, S (Karthaeuser, Silvia)

Source: ACS APPLIED NANO MATERIALS **DOI:** 10.1021/acsanm.2c04165 **Early Access Date:** OCT 2022

Accession Number: WOS:000877146000001

eISSN: 2574-0970

Title: Ab initio phase diagrams of Hf-O, Zr-O and Y-O: a comparative study

Author(s): Rushchanskii, KZ (Rushchanskii, Konstantin Z.); Blugel, S (Bluegel, Stefan); Lezaic, M (Lezaic, Marjana)

Source: FARADAY DISCUSSIONS **Volume:** 213 **Pages:** 321-337 **DOI:** 10.1039/c8fd00104a **Published:** FEB 1 2019

Accession Number: WOS:000459184500020

PubMed ID: 30361735

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rushchanskii, Konstantin Z	B-3276-2008	
Lezaic, Marjana	H-8510-2013	0000-0002-7318-9444
Bluegel, Stefan	J-8323-2013	0000-0001-9987-4733
Rushchanskii, Konstantin		0000-0003-3070-5725

ISSN: 1359-6640

eISSN: 1364-5498

Title: In-situ four-tip STM investigation of the transition from 2D to 3D charge transport in SrTiO₃

Author(s): Leis, A (Leis, Arthur); Rodenbuecher, C (Rodenbuecher, Christian); Szot, K (Szot, Krzysztof); Cherepanov, V (Cherepanov, Vasily); Tautz, FST (Tautz, F. S. Tefan); Voigtlander, B (Voigtlaender, Bert)

Source: SCIENTIFIC REPORTS **Volume:** 9 **Article Number:** 2476 **DOI:** 10.1038/s41598-019-38888-x **Published:** FEB 21 2019

Accession Number: WOS:000459281500045

PubMed ID: 30792428

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Voigtländer, Bert	B-2156-2008	0000-0001-9580-7031
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Tautz, Frank Stefan	L-4500-2016	0000-0003-3583-2379
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Leis, Arthur		0000-0001-5523-4697

ISSN: 2045-2322

Title: Routes for increasing endurance and retention in HfO₂-based resistive switching memories

Author(s): Rushchanskii, KZ (Rushchanskii, Konstantin Z.); Blugel, S (Bluegel, Stefan); Lezaic, M (Lezaic, Marjana)

Source: PHYSICAL REVIEW MATERIALS **Volume:** 2 **Issue:** 11 **Article Number:** 115002 **DOI:** 10.1103/PhysRevMaterials.2.115002 **Published:** NOV 27 2018

Accession Number: WOS:000451589500005

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Rushchanskii, Konstantin Z	B-3276-2008	
Lezaic, Marjana	H-8510-2013	0000-0002-7318-9444

ISSN: 2475-9953

Title: Fast mapping of inhomogeneities in the popular metallic perovskite Nb:SrTiO₃ by confocal Raman microscopy

Author(s): Rodenbuecher, C (Rodenbuecher, Christian); Jauss, A (Jauss, Andrea); Havel, V (Havel, Viktor); Waser, R (Waser, Rainer); Szot, K (Szot, Kristof)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 8 **Issue:** 9 **Pages:** 781-784 **DOI:** 10.1002/pssr.201409221 **Published:** SEP 2014

Accession Number: WOS:000342692300006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 1862-6254

eISSN: 1862-6270

Title: Unraveling the enhanced Oxygen Vacancy Formation in Complex Oxides during Annealing and Growth

Author(s): Hensling, FVE (Hensling, Felix V. E.); Xu, CC (Xu, Chencheng); Gunkel, F (Gunkel, Felix); Dittmann, R (Dittmann, Regina)

Source: SCIENTIFIC REPORTS **Volume:** 7 **Article Number:** 39953 **DOI:** 10.1038/srep39953 **Published:** JAN 16 2017

Accession Number: WOS:000392097400001

PubMed ID: 28091517

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Xu, Chencheng	HNS-1645-2023	0000-0003-1942-6901
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Hensling, Felix		0000-0003-3852-7214

ISSN: 2045-2322

Title: 3-bit Resistive RAM Write-Read Scheme Based on Complementary Switching Mechanism

Author(s): Schonhals, A (Schoenhals, A.); Mohr, J (Mohr, J.); Wouters, DJ (Wouters, D. J.); Waser, R (Waser, R.); Menzel, S (Menzel, S.)

Source: IEEE ELECTRON DEVICE LETTERS **Volume:** 38 **Issue:** 4 **Pages:** 449-452 **DOI:** 10.1109/LED.2017.2670642 **Published:** APR 2017

Accession Number: WOS:000398905400010

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Schonhals, Alexander		0000-0003-0118-6321

ISSN: 0741-3106

eISSN: 1558-0563

Title: Quasi-two-dimensional conducting layer on TiO₂ (110) introduced by sputtering as a template for resistive switching

Author(s): Rogala, M (Rogala, M.); Klusek, Z (Klusek, Z.); Rodenbuecher, C (Rodenbuecher, C.); Waser, R (Waser, R.); Szot, K (Szot, K.)

Source: APPLIED PHYSICS LETTERS **Volume:** 102 **Issue:** 13 **Article Number:** 131604 **DOI:** 10.1063/1.4801437 **Published:** APR 1 2013

Accession Number: WOS:000317240200021

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Szot, Kristof/Krzysztof	K-5441-2013	0000-0001-8773-2754
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Rogala, Maciej		0000-0002-7898-5087

ISSN: 0003-6951

eISSN: 1077-3118

Title: Exploring the subsurface atomic structure of the epitaxially grown phase-change material Ge₂Sb₂Te₅

Author(s): Kellner, J (Kellner, J.); Bihlmayer, G (Bihlmayer, G.); Deringer, VL (Deringer, V. L.); Liebmann, M (Liebmann, M.); Pauly, C (Pauly, C.); Giussani, A (Giussani, A.); Boschker, JE (Boschker, J. E.); Calarco, R (Calarco, R.); Dronskowski, R (Dronskowski, R.); Morgenstern, M (Morgenstern, M.)

Source: PHYSICAL REVIEW B **Volume:** 96 **Issue:** 24 **Article Number:** 245408 **DOI:** 10.1103/PhysRevB.96.245408 **Published:** DEC 11 2017

Accession Number: WOS:000417639900007

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Boschker, Jos	L-6517-2018	0000-0001-9122-2079
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Giussani, Alessandro	D-3419-2012	0000-0001-6255-391X

ISSN: 2469-9950

eISSN: 2469-9969

Title: Electrochemical methods for determining ionic charge in solids

Author(s): De Souza, RA (De Souza, Roger A.); Mueller, DN (Mueller, David N.)

Source: NATURE MATERIALS **Volume:** 20 **Issue:** 4 **Pages:** 443-446 **DOI:** 10.1038/s41563-020-0790-9 **Early Access Date:** SEP 2020 **Published:** APR 2021

Accession Number: WOS:000571692500008

PubMed ID: 32958883

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 1476-1122

eISSN: 1476-4660

Title: Interface kinetics in phase-field models: Isothermal transformations in binary alloys and step dynamics in molecular-beam epitaxy

Author(s): Boussinot, G (Boussinot, G.); Brener, EA (Brener, Efim A.)

Source: PHYSICAL REVIEW E **Volume:** 88 **Issue:** 2 **Article Number:** 022406 **DOI:** 10.1103/PhysRevE.88.022406 **Published:** AUG 26 2013

Accession Number: WOS:000323576400009

PubMed ID: 24032848

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Brener, Efim		0000-0003-0472-1297

ISSN: 1539-3755

eISSN: 1550-2376

Title: Photoemission electron microscopy of magneto-ionic effects in La_{0.7}Sr_{0.3}MnO₃

Author(s): Wilhelm, M (Wilhelm, Marek); Giesen, M (Giesen, Margret); Duchon, T (Duchon, Tomas); Moors, M (Moors, Marco); Mueller, DN (Mueller, David N.); Hackl, J (Hackl, Johanna); Baeumer, C (Baeumer, Christoph); Hamed, MH (Hamed, Mai Hussein); Cao, L (Cao, Lei); Zhang, HB (Zhang, Hengbo); Petravic, O (Petravic, Oleg); Gloss, M (Gloss, Maria); Cramm, S (Cramm, Stefan); Nemsak, S (Nemsak, Slavomir); Wiemann, C (Wiemann, Carsten); Dittmann, R (Dittmann, Regina); Schneider, CM (Schneider, Claus M.); Muller, M (Mueller, Martina)

Source: APL MATERIALS **Volume:** 8 **Issue:** 11 **Article Number:** 111102 **DOI:** 10.1063/5.0022150 **Published:** NOV 1 2020

Accession Number: WOS:000589751800001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Baeumer, Christoph	AHA-1151-2022	
Duchoň, Tomáš	O-5143-2017	0000-0002-3035-012X
Müller, Martina	O-2473-2015	0000-0001-6082-9038
Giesen, Margret		0000-0002-7656-887X
Baeumer, Christoph		0000-0003-0008-514X
Hamed, Mai Hussein		0000-0001-8165-1216
Cao, Lei		0000-0003-4628-4515

ISSN: 2166-532X

Title: Effect of Cationic Interface Defects on Band Alignment and Contact Resistance in Metal/Oxide Heterojunctions

Author(s): Andra, M (Andrae, Michael); Funck, C (Funck, Carsten); Raab, N (Raab, Nicolas); Rose, MA (Rose, Marc-Andre); Vorokhta, M (Vorokhta, Mykhailo); Dvorak, F (Dvorak, Filip); Smid, B (Smid, Bretislav); Matolin, V (Matolin, Vladimir); Mueller, DN (Mueller, David N.); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan); Gunkel, F (Gunkel, Felix)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 6 **Issue:** 1 **Article Number:** 1900808 **DOI:** 10.1002/aelm.201900808 **Early Access Date:** NOV 2019 **Published:** JAN 2020

Accession Number: WOS:000496844200001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986

Vorokhta, Mykhailo	HDM-7833-2022	0000-0001-8382-7027
Šmíd, Břetislav	P-5046-2017	0000-0002-8355-1291
Vorochta, Michael	O-5169-2017	0000-0001-8382-7027
Šmíd, Břetislav	AAM-9727-2020	0000-0002-8355-1291
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Matolin, Vladimir	F-3812-2015	0000-0002-3394-4142

ISSN: 2199-160X

Title: Exploring the Ligand Functionality, Electronic Band Gaps, and Switching Characteristics of Single Wells-Dawson-Type Polyoxometalates on Gold

Author(s): Gloss, M (Gloss, Maria); Putt, R (Puett, Ricarda); Moors, M (Moors, Marco); Kentzinger, E (Kentzinger, Emmanuel); Karthäuser, S (Karthäuser, Silvia); Monakhov, KY (Monakhov, Kirill Yu)

Source: ADVANCED MATERIALS INTERFACES **Volume:** 9 **Issue:** 21 **Article Number:** 2200461 **DOI:** 10.1002/admi.202200461 **Early Access Date:** JUN 2022 **Published:** JUL 2022

Accession Number: WOS:000816842400001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Karthäuser, Silvia	K-7057-2013	0000-0003-3953-6980
Monakhov, Kirill	A-6192-2011	0000-0002-1013-0680
Kentzinger, Emmanuel		0000-0002-5348-7591

ISSN: 2196-7350

Title: A SIMS study of cation and anion diffusion in tantalum oxide

Author(s): Gries, UN (Gries, U. N.); Schraknepper, H (Schraknepper, H.); Skaja, K (Skaja, K.); Gunkel, F (Gunkel, F.); Hoffmann-Eifert, S (Hoffmann-Eifert, S.); Waser, R (Waser, R.); De Souza, RA (De Souza, R. A.)

Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS **Volume:** 20 **Issue:** 2 **Pages:** 989-996 **DOI:** 10.1039/c7cp07441g **Published:** JAN 14 2018

Accession Number: WOS:000419219700029

PubMed ID: 29234759

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 1463-9076

eISSN: 1463-9084

Title: Scaling Potential of Local Redox Processes in Memristive SrTiO₃ Thin-Film Devices

Author(s): Dittmann, R (Dittmann, Regina); Muenstermann, R (Muenstermann, Ruth); Krug, I (Krug, Ingo); Park, D (Park, Daesung); Menke, T (Menke, Tobias); Mayer, J (Mayer, Joachim); Besmehn, A (Besmehn, Astrid); Kronast, F (Kronast, Florian); Schneider, CM (Schneider, Claus Michael); Waser, R (Waser, Rainer)

Source: PROCEEDINGS OF THE IEEE **Volume:** 100 **Issue:** 6 **Special Issue:** SI **Pages:** 1979-1990 **DOI:** 10.1109/JPROC.2012.2188771 **Published:** JUN 2012

Accession Number: WOS:000309840600008

Author Identifiers:

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Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Krug, Ingo	G-5338-2013	0000-0003-4579-6674
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342

ISSN: 0018-9219

eISSN: 1558-2256

Title: Cluster-like resistive switching of SrTiO₃: Nb surface layers

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Speier, W (Speier, W.); Bihlmayer, G (Bihlmayer, G.); Breuer, U (Breuer, U.); Waser, R (Waser, R.); Szot, K (Szot, K.)

Source: NEW JOURNAL OF PHYSICS **Volume:** 15 **Article Number:** 103017 **DOI:** 10.1088/1367-2630/15/10/103017 **Published:** OCT 17 2013

Accession Number: WOS:000325748300003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Speier, Wolfgang		0000-0002-3900-6931
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 1367-2630

Title: On the universality of the I-V switching characteristics in non-volatile and volatile resistive switching oxides

Author(s): Wouters, DJ (Wouters, Dirk J.); Menzel, S (Menzel, Stephan); Rupp, JAJ (Rupp, Jonathan A. J.); Hennen, T (Hennen, Tyler); Waser, R (Waser, Rainer)

Source: FARADAY DISCUSSIONS **Volume:** 213 **Pages:** 183-196 **DOI:** 10.1039/c8fd00116b **Published:** FEB 1 2019

Accession Number: WOS:000459184500012

PubMed ID: 30362486

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 1359-6640

eISSN: 1364-5498

Title: Design rules for threshold switches based on a field triggered thermal runaway mechanism

Author(s): Funck, C (Funck, Carsten); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Lukas, S (Lukas, Sebastian); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: JOURNAL OF COMPUTATIONAL ELECTRONICS **Volume:** 16 **Issue:** 4 **Special Issue:** SI **Pages:** 1175-1185 **DOI:** 10.1007/s10825-017-1061-0 **Published:** DEC 2017

Accession Number: WOS:000417598100017

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Lukas, Sebastian	AAX-5333-2021	0000-0002-8062-2832
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X

ISSN: 1569-8025

eISSN: 1572-8137

Title: Formation mechanism of Ruddlesden-Popper-type antiphase boundaries during the kinetically limited growth of Sr rich SrTiO₃ thin films

Author(s): Xu, CC (Xu, Chencheng); Du, HC (Du, Hongchu); van der Torren, AJH (van der Torren, Alexander J. H.); Aarts, J (Aarts, Jan); Jia, CL (Jia, Chun-Lin); Dittmann, R (Dittmann, Regina)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 38296 **DOI:** 10.1038/srep38296 **Published:** DEC 6 2016

Accession Number: WOS:000389370600002

PubMed ID: 27922069

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Aarts, Jan	D-5959-2018	0000-0002-4113-0835
Xu, Chencheng	HNS-1645-2023	0000-0003-1942-6901
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2045-2322

Title: Probing two topological surface bands of Sb₂Te₃ by spin-polarized photoemission spectroscopy

Author(s): Pauly, C (Pauly, C.); Bihlmayer, G (Bihlmayer, G.); Liebmann, M (Liebmann, M.); Grob, M (Grob, M.); Georgi, A (Georgi, A.); Subramaniam, D (Subramaniam, D.); Scholz, MR (Scholz, M. R.); Sanchez-Barriga, J (Sanchez-Barriga, J.); Varykhalov, A (Varykhalov, A.); Blugel, S (Bluegel, S.); Rader, O (Rader, O.); Morgenstern, M (Morgenstern, M.)

Source: PHYSICAL REVIEW B **Volume:** 86 **Issue:** 23 **Article Number:** 235106 **DOI:** 10.1103/PhysRevB.86.235106 **Published:** DEC 5 2012

Accession Number: WOS:000311911500002

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rader, Oliver	H-8498-2013	0000-0003-3639-0971
Sánchez-Barriga, Jaime	I-3493-2013	0000-0001-9947-6700
Blügel, Stefan	J-8323-2013	0000-0001-9987-4733
Morgenstern, Markus	K-7785-2013	0000-0002-3993-6880
Varykhalov, Andrei	I-3571-2013	0000-0002-7901-3562
Liebmann, Marcus	G-6254-2012	0000-0003-4787-0129
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122

ISSN: 1098-0121

Title: Improved Switching Stability and the Effect of an Internal Series Resistor in HfO₂/TiO_x Bilayer ReRAM Cells

Author(s): Hardtdegen, A (Hardtdegen, Alexander); La Torre, C (La Torre, Camilla); Cuppers, F (Cueppers, Felix); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne)

Source: IEEE TRANSACTIONS ON ELECTRON DEVICES **Volume:** 65 **Issue:** 8 **Pages:** 3229-3236 **DOI:**

10.1109/TED.2018.2849872 **Published:** AUG 2018

Accession Number: WOS:000439649900021

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Cuppers, Felix		0000-0002-1959-6524

ISSN: 0018-9383

eISSN: 1557-9646

Title: Nanoionic Resistive Switching Memories: On the Physical Nature of the Dynamic Reset Process

Author(s): Marchewka, A (Marchewka, Astrid); Roesgen, B (Roesgen, Bernd); Skaja, K (Skaja, Katharina); Du, HC (Du, Hongchu); Jia, CL (Jia, Chun-Lin); Mayer, J (Mayer, Joachim); Rana, V (Rana, Vikas); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 2 **Issue:** 1 **Article Number:** 1500233 **DOI:** 10.1002/aelm.201500233 **Published:** JAN 2016

Accession Number: WOS:000370335000012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Du, Hongchu	L-5603-2014	0000-0002-4661-4644
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Marchewka, Astrid		0000-0002-1576-1684

ISSN: 2199-160X

Title: Origin of the SET Kinetics of the Resistive Switching in Tantalum Oxide Thin Films

Author(s): Nishi, Y (Nishi, Yoshifumi); Menzel, S (Menzel, Stephan); Fleck, K (Fleck, Karsten); Bottger, U (Boettger, Ulrich); Waser, R (Waser, Rainer)

Source: IEEE ELECTRON DEVICE LETTERS **Volume:** 35 **Issue:** 2 **Pages:** 259-261 **DOI:** 10.1109/LED.2013.2294868 **Published:** FEB 2014

Accession Number: WOS:000331377500037

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0741-3106

eISSN: 1558-0563

Title: Electro-degradation and resistive switching of Fe-doped SrTiO₃ single crystal

Author(s): Wojtyniak, M (Wojtyniak, M.); Szot, K (Szot, K.); Wrzalik, R (Wrzalik, R.); Rodenbuecher, C (Rodenbuecher, C.); Roth, G (Roth, G.); Waser, R (Waser, R.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 113 **Issue:** 8 **Article Number:** 083713 **DOI:** 10.1063/1.4793632 **Published:** FEB 28 2013

Accession Number: WOS:000315667500048

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Wojtyniak, Marcin	GYU-7140-2022	0000-0001-9197-6890
Szot, Kristof/Krzysztof	K-5441-2013	0000-0001-8773-2754

ISSN: 0021-8979

eISSN: 1089-7550

Title: Impact of Bonding on the Stacking Defects in Layered Chalcogenides**Author(s):** Mio, AM (Mio, Antonio M.); Konze, PM (Konze, Philipp M.); Meledin, A (Meledin, Alexander); Kpers, M (Kuepers, Michael); Pohlmann, M (Pohlmann, Marc); Kaminski, M (Kaminski, Marvin); Dronskowski, R (Dronskowski, Richard); Mayer, J (Mayer, Joachim); Wuttig, M (Wuttig, Matthias)**Source:** ADVANCED FUNCTIONAL MATERIALS **Volume:** 29 **Issue:** 37 **Article Number:** 1902332 **DOI:** 10.1002/adfm.201902332 **Early Access Date:** JUL 2019 **Published:** SEP 2019**Accession Number:** WOS:000478435400001**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Meledin, Alexander	C-7524-2016	0000-0002-3200-0553
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Konze, Philipp		0000-0002-7946-702X
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1616-301X

eISSN: 1616-3028

Title: Identification of screw dislocations as fast-forming sites in Fe-doped SrTiO₃**Author(s):** Lenser, C (Lenser, Ch.); Connell, Z (Connell, Z.); Kovacs, A (Kovacs, A.); Dunin-Borkowski, R (Dunin-Borkowski, R.); Kohl, A (Koehl, A.); Waser, R (Waser, R.); Dittmann, R (Dittmann, R.)**Source:** APPLIED PHYSICS LETTERS **Volume:** 102 **Issue:** 18 **Article Number:** 183504 **DOI:** 10.1063/1.4804364 **Published:** MAY 6 2013**Accession Number:** WOS:000320439900082**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Kovacs, Andras	K-3360-2013	0000-0001-8485-991X
Kovacs, Andras	K-3382-2013	0000-0001-8485-991X
Dunin-Borkowski, Rafal	G-5597-2012	0000-0001-8082-0647
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Lenser, Christian		0000-0001-5636-2201

ISSN: 0003-6951

eISSN: 1077-3118

Title: Amorphous and highly nonstoichiometric titania (TiO_x) thin films close to metal-like conductivity**Author(s):** Leichtweiss, T (Leichtweiss, Thomas); Henning, RA (Henning, Ralph A.); Koettgen, J (Koettgen, Julius); Schmidt, RM (Schmidt, Ruediger M.); Hollander, B (Hollaender, Bernd); Martin, M (Martin, Manfred);

Wuttig, M (Wuttig, Matthias); Janek, J (Janek, Juergen)

Source: JOURNAL OF MATERIALS CHEMISTRY A **Volume:** 2 **Issue:** 18 **Pages:** 6631-6640 **DOI:** 10.1039/c3ta14816e **Published:** 2014

Accession Number: WOS:000334123100048

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Koettgen, Julius	F-7034-2014	0000-0002-8260-4793
Martin, Manfred	V-3592-2017	0000-0001-9046-050X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Janek, Juergen	A-9482-2012	
Janek, Jurgen		0000-0002-9221-4756

ISSN: 2050-7488

eISSN: 2050-7496

Title: Exploring Area-Dependent Pr_{0.7}Ca_{0.3}MnO₃-Based Memristive Devices as Synapses in Spiking and Artificial Neural Networks

Author(s): Gutsche, A (Gutsche, Alexander); Siegel, S (Siegel, Sebastian); Zhang, JC (Zhang, Jinchao); Hamsch, S (Hamsch, Sebastian); Dittmann, R (Dittmann, Regina)

Source: FRONTIERS IN NEUROSCIENCE **Volume:** 15 **Article Number:** 661261 **DOI:** 10.3389/fnins.2021.661261 **Published:** JUL 2 2021

Accession Number: WOS:000674438100001

PubMed ID: 34276286

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hamsch, Sebastian		0000-0001-6591-6616
Gutsche, Alexander		0000-0002-5574-2349

eISSN: 1662-453X

Title: Nonstoichiometry accommodation in SrTiO₃ thin films studied by positron annihilation and electron microscopy

Author(s): Keeble, DJ (Keeble, D. J.); Wicklein, S (Wicklein, S.); Jin, L (Jin, L.); Jia, CL (Jia, C. L.); Egger, W (Egger, W.); Dittmann, R (Dittmann, R.)

Source: PHYSICAL REVIEW B **Volume:** 87 **Issue:** 19 **Article Number:** 195409 **DOI:** 10.1103/PhysRevB.87.195409 **Published:** MAY 8 2013

Accession Number: WOS:000318687300007

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Jin, Lei	D-2404-2010	0000-0001-6924-2364
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Keeble, David	C-6633-2012	0000-0002-5378-799X

ISSN: 2469-9950

eISSN: 2469-9969

Title: Nanoionic memristive phenomena in metal oxides: the valence change mechanism

Author(s): Dittmann, R (Dittmann, Regina); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer)

Source: ADVANCES IN PHYSICS **Volume:** 70 **Issue:** 2 **Pages:** 155-349 **DOI:**

10.1080/00018732.2022.2084006 **Early Access Date:** AUG 2022 **Published:** APR 3 2021

Accession Number: WOS:000836976000001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 0001-8732

eISSN: 1460-6976

Title: Low-current operations in 4F(2)-compatible Ta₂O₅-based complementary resistive switches

Author(s): Breuer, T (Breuer, Thomas); Siemon, A (Siemon, Anne); Linn, E (Linn, Eike); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Source: NANOTECHNOLOGY **Volume:** 26 **Issue:** 41 **Article Number:** 415202 **DOI:**

10.1088/0957-4484/26/41/415202 **Published:** OCT 16 2015

Accession Number: WOS:000363433700003

PubMed ID: 26403696

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Breuer, Thomas		0000-0001-6995-9226

ISSN: 0957-4484

eISSN: 1361-6528

Title: Electrically controlled transformation of memristive titanates into mesoporous titanium oxides via incongruent sublimation

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Meuffels, P (Meuffels, P.); Bihlmayer, G (Bihlmayer, G.); Speier, W (Speier, W.); Du, H (Du, H.); Schwedt, A (Schwedt, A.); Breuer, U (Breuer, U.); Jia, CL (Jia, C. -L.); Mayer, J (Mayer, J.); Waser, R (Waser, R.); Szot, K (Szot, K.)

Source: SCIENTIFIC REPORTS **Volume:** 8 **Article Number:** 3774 **DOI:** 10.1038/s41598-018-22238-4 **Published:** FEB 28 2018

Accession Number: WOS:000426262400027

PubMed ID: 29491379

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Schwedt, Alexander	AAM-8961-2020	
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2045-2322

Title: Forming-Free TiO₂-Based Resistive Switching Devices on CMOS-Compatible W-Plugs

Author(s): Hermes, C (Hermes, C.); Bruchhaus, R (Bruchhaus, R.); Waser, R (Waser, R.)

Source: IEEE ELECTRON DEVICE LETTERS **Volume:** 32 **Issue:** 11 **Pages:** 1588-1590 **DOI:** 10.1109/LED.2011.2166371 **Published:** NOV 2011

Accession Number: WOS:000296239500040

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0741-3106

eISSN: 1558-0563

Title: Redox-Based Resistive Switching Memories

Author(s): Waser, R (Waser, Rainer)

Source: JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY **Volume:** 12 **Issue:** 10 **Pages:** 7628-7640 **DOI:** 10.1166/jnn.2012.6652 **Published:** OCT 2012

Accession Number: WOS:000312620200005

PubMed ID: 23421124

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 1533-4880

eISSN: 1533-4899

Title: On the role of the metal oxide/reactive electrode interface during the forming procedure of valence change ReRAM devices

Author(s): Kindsmuller, A (Kindsmueller, Andreas); Meledin, A (Meledin, Alexander); Mayer, J (Mayer, Joachim); Waser, R (Waser, Rainer); Wouters, DJ (Wouters, Dirk J.)

Source: NANOSCALE **Volume:** 11 **Issue:** 39 **Pages:** 18201-18208 **DOI:** 10.1039/c9nr06624a **Published:** OCT 21 2019

Accession Number: WOS:000512634500028

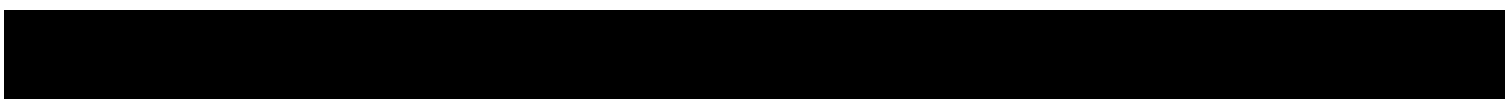
PubMed ID: 31560012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Meledin, Alexander	C-7524-2016	0000-0002-3200-0553
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342

ISSN: 2040-3364

eISSN: 2040-3372



Title: Mechanisms of Atomic Motion Through Crystalline GeTe

Author(s): Deringer, VL (Deringer, Volker L.); Lumeij, M (Lumeij, Marck); Stoffel, RP (Stoffel, Ralf P.); Dronskowski, R (Dronskowski, Richard)

Source: CHEMISTRY OF MATERIALS **Volume:** 25 **Issue:** 11 **Pages:** 2220-2226 **DOI:**

10.1021/cm400316j **Published:** JUN 11 2013

Accession Number: WOS:000320485700004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624

ISSN: 0897-4756

eISSN: 1520-5002

Title: Stoichiometry dependence of resistance drift phenomena in amorphous GeSnTe phase-change alloys

Author(s): Luckas, J (Luckas, J.); Piarristeguy, A (Piarristeguy, A.); Bruns, G (Bruns, G.); Jost, P (Jost, P.); Grothe, S (Grothe, S.); Schmidt, RM (Schmidt, R. M.); Longeaud, C (Longeaud, C.); Wuttig, M (Wuttig, M.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 113 **Issue:** 2 **Article Number:** 023704 **DOI:**

10.1063/1.4769871 **Published:** JAN 14 2013

Accession Number: WOS:000313644500032

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025

ISSN: 0021-8979

eISSN: 1089-7550

Title: Bulk mixed ion electron conduction in amorphous gallium oxide causes memristive behaviour

Author(s): Aoki, Y (Aoki, Yoshitaka); Wiemann, C (Wiemann, Carsten); Feyer, V (Feyer, Vitaliy); Kim, HS (Kim, Hong-Seok); Schneider, CM (Schneider, Claus Michael); Ill-Yoo, H (Ill-Yoo, Han); Martin, M (Martin, Manfred)

Source: NATURE COMMUNICATIONS **Volume:** 5 **Article Number:** 3473 **DOI:**

10.1038/ncomms4473 **Published:** MAR 2014

Accession Number: WOS:000334300800002

PubMed ID: 24632885

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Martin, Manfred	V-3592-2017	0000-0001-9046-050X
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Aoki, Yoshitaka	Q-3411-2018	
Wiemann, Carsten		0000-0001-6621-3736

Feyer, Vitaliy	0000-0002-7104-5420
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ISSN: 2041-1723

Title: Compositional dependencies in the vibrational properties of amorphous Ge-As-Se and Ge-Sb-Te chalcogenide alloys studied by Raman spectroscopy

Author(s): Shportko, K (Shportko, K.); Revutska, L (Revutska, L.); Paiuk, O (Paiuk, O.); Baran, J (Baran, J.); Stronski, A (Stronski, A.); Gubanova, A (Gubanova, A.); Venger, E (Venger, E.)

Source: OPTICAL MATERIALS **Volume:** 73 **Pages:** 489-496 **DOI:** 10.1016/j.optmat.2017.08.042 **Published:** NOV 2017

Accession Number: WOS:000414882000067

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Stronski, Alexander	AAT-9755-2020	0000-0002-5096-3740
Paiuk, Oleksandr	H-7029-2015	0000-0001-9350-3958
Shportko, Kostiantyn		0000-0001-6813-4871
Baran, Jan		0000-0001-9251-8197

ISSN: 0925-3467

eISSN: 1873-1252

Title: Fabrication of a resistive switching gallium oxide thin film with a tailored gallium valence state and oxygen deficiency by rf cosputtering process

Author(s): Kura, C (Kura, Chiharu); Aoki, Y (Aoki, Yoshitaka); Tsuji, E (Tsuji, Etsushi); Habazaki, H (Habazaki, Hiroki); Martin, M (Martin, Manfred)

Source: RSC ADVANCES **Volume:** 6 **Issue:** 11 **Pages:** 8964-8970 **DOI:** 10.1039/c5ra21160c **Published:** 2016

Accession Number: WOS:000369515900052

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Martin, Manfred	V-3592-2017	0000-0001-9046-050X
Habazaki, Hiroki	C-5388-2012	0000-0002-7172-8811
Aoki, Yoshitaka	Q-3411-2018	

ISSN: 2046-2069

Title: Impact of oxygen exchange reaction at the ohmic interface in Ta2O5-based ReRAM devices

Author(s): Kim, W (Kim, Wonjoo); Menzel, S (Menzel, Stephan); Wouters, DJ (Wouters, Dirk J.); Guo, YZ (Guo, Yuzheng); Robertson, J (Robertson, John); Roesgen, B (Roesgen, Bernd); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Source: NANOSCALE **Volume:** 8 **Issue:** 41 **Pages:** 17774-17781 **DOI:** 10.1039/c6nr03810g **Published:** NOV 7 2016

Accession Number: WOS:000387331100006

PubMed ID: 27523172

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

Guo, Yuzheng | 0000-0003-2656-0340

ISSN: 2040-3364

eISSN: 2040-3372

Title: Doping by Design: Enhanced Thermoelectric Performance of GeSe Alloys Through Metavalent Bonding

Author(s): Yu, Y (Yu, Yuan); Zhou, CJ (Zhou, Chongjian); Ghosh, T (Ghosh, Tanmoy); Schoen, CF (Schoen, Carl-Friedrich); Zhou, YM (Zhou, Yiming); Wahl, S (Wahl, Sophia); Raghuwanshi, M (Raghuwanshi, Mohit); Kerres, P (Kerres, Peter); Bellin, C (Bellin, Christophe); Shukla, A (Shukla, Abhay); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **DOI:** 10.1002/adma.202300893 **Early Access Date:** MAR 2023

Accession Number: WOS:000956477500001

PubMed ID: 36920476

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Shukla, Abhay	G-6753-2011	
Yu, Yuan		0000-0002-3148-6600

ISSN: 0935-9648

eISSN: 1521-4095

Title: Chalcogenides by Design: Functionality through Metavalent Bonding and Confinement

Author(s): Kooi, BJ (Kooi, Bart J.); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **Volume:** 32 **Issue:** 21 **Article Number:** 1908302 **DOI:**

10.1002/adma.201908302 **Early Access Date:** APR 2020 **Published:** MAY 2020 **Accession**

Number: WOS:000523284500001

PubMed ID: 32243014

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Institute, Zernike	W-7033-2019	
Kooi, Bart J.	GVS-9057-2022	
Wuttig, Matthias		0000-0003-1498-1025
Kooi, Bart J.		0000-0002-0311-4105

ISSN: 0935-9648

eISSN: 1521-4095

Title: Scaling and Confinement in Ultrathin Chalcogenide Films as Exemplified by GeTe

Author(s): Kerres, P (Kerres, Peter); Zhou, YM (Zhou, Yiming); Vaishnav, H (Vaishnav, Hetal); Raghuwanshi, M (Raghuwanshi, Mohit); Wang, JJ (Wang, Jiangjing); Haeser, M (Haeser, Maria); Pohlmann, M (Pohlmann, Marc); Cheng, YD (Cheng, Yudong); Schon, CF (Schoen, Carl-Friedrich); Jansen, T (Jansen, Thomas); Bellin, C (Bellin, Christophe); Burgler, DE (Burgler, Daniel E.); Jalil, AR (Jalil, Abdur Rehman); Ringkamp, C (Ringkamp, Christoph); Kowalczyk, H (Kowalczyk, Hugo); Schneider, CM (Schneider, Claus M.); Shukla, A (Shukla, Abhay); Wuttig, M (Wuttig, Matthias)

Source: SMALL **Volume:** 18 **Issue:** 21 **Article Number:** 2201753 **DOI:** 10.1002/sml.202201753 **Early**

Access Date: MAY 2022 **Published:** MAY 2022

Accession Number: WOS:000789168100001

PubMed ID: 35491494

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Buergler, Daniel E	I-7408-2012	0000-0002-5579-4886
Jalil, Abdur Rehman	GLR-5996-2022	
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Shukla, Abhay	G-6753-2011	
Jalil, Abdur Rehman	C-1431-2018	0000-0003-1869-2466
Ringkamp, Christoph		0000-0003-3175-0720

ISSN: 1613-6810

eISSN: 1613-6829

Title: Design Parameters for Phase-Change Materials for Nanostructure Resonance Tuning

Author(s): Michel, AKU (Michel, Ann-Katrin U.); Wuttig, M (Wuttig, Matthias); Taubner, T (Taubner, Thomas)

Source: ADVANCED OPTICAL MATERIALS **Volume:** 5 **Issue:** 18 **Article Number:** 1700261 **DOI:** 10.1002/adom.201700261 **Published:** SEP 18 2017

Accession Number: WOS:000410805600006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Taubner, Thomas	E-8779-2012	0000-0002-0628-3043
Michel, Ann-Katrin U.	AAI-6083-2020	0000-0002-6130-3991
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025

ISSN: 2195-1071

Title: Tailoring Crystallization Kinetics of Chalcogenides for Photonic Applications

Author(s): Muller, MJ (Mueller, Maximilian J.); Yadav, A (Yadav, Aakash); Persch, C (Persch, Christoph); Wahl, S (Wahl, Sophia); Hoff, F (Hoff, Felix); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 8 **Issue:** 8 **Special Issue:** SI **Article Number:** 2100974 **DOI:** 10.1002/aelm.202100974 **Early Access Date:** NOV 2021 **Published:** AUG 2022

Accession Number: WOS:000720738700001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Yadav, Aakash		0000-0002-4268-4709
Wuttig, Matthias		0000-0003-1498-1025
Muller, Maximilian		0000-0003-0447-8338

ISSN: 2199-160X

Title: Disorder and compositional dependences in Urbach-Martienssen tails in amorphous (GeTe)_x(Sb₂Te₃)_(1-x) alloys

Author(s): Shportko, KV (Shportko, K., V)

Source: SCIENTIFIC REPORTS **Volume:** 9 **Article Number:** 6030 **DOI:** 10.1038/s41598-019-42634-8 **Published:** APR 15 2019

Accession Number: WOS:000464495300011

PubMed ID: 30988383

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Shportko, Kostiantyn		0000-0001-6813-4871

ISSN: 2045-2322

Title: Examination of a Structural Preference in Quaternary Alkali-Metal (A) Rare-Earth (R) Copper Tellurides by Combining Experimental and Quantum-chemical Means

Author(s): Gladisch, FC (Gladisch, Fabian C.); Pippinger, T (Pippinger, Thomas); Meyer, J (Meyer, Jens); Pries, J (Pries, Julian); Richter, J (Richter, Jens); Steinberg, S (Steinberg, Simon)

Source: INORGANIC CHEMISTRY **Volume:** 61 **Issue:** 24 **Pages:** 9269-9282 **DOI:** 10.1021/acs.inorgchem.2c01002 **Published:** JUN 20 2022

Accession Number: WOS:000814194200001

PubMed ID: 35667003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Steinberg, Simon	ABF-6457-2020	0000-0001-8022-7018

ISSN: 0020-1669

eISSN: 1520-510X

Title: DFT Studies of Pristine Hexagonal Ge₁Sb₂Te₄(0001), Ge₂Sb₂Te₅(0001), and Ge₁Sb₄Te₇(0001) Surfaces

Author(s): Deringer, VL (Deringer, Volker L.); Dronskowski, R (Dronskowski, Richard)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 117 **Issue:** 29 **Pages:** 15075-15089 **DOI:** 10.1021/jp401400k **Published:** JUL 25 2013

Accession Number: WOS:000322503600022

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Deringer, Volker	O-6003-2018	0000-0001-6873-0278

ISSN: 1932-7447

eISSN: 1932-7455

Title: Metavalent Bonding in Solids: Characteristic Representatives, Their Properties, and Design Options

Author(s): Cheng, YD (Cheng, Yudong); Wahl, S (Wahl, Sophia); Wuttig, M (Wuttig, Matthias)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 15 **Issue:** 3 **Special Issue:** SI **Article Number:** 2000482 **DOI:** 10.1002/pssr.202000482 **Early Access Date:** DEC 2020 **Published:** MAR 2021

Accession Number: WOS:000596813900001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1862-6254

eISSN: 1862-6270

Title: Ab Initio Modeling of alpha-GeTe(111) Surfaces

Author(s): Deringer, VL (Deringer, Volker L.); Lumeij, M (Lumeij, Marck); Dronskowski, R (Dronskowski, Richard)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 116 **Issue:** 29 **Pages:** 15801-15811 **DOI:** 10.1021/jp304455z **Published:** JUL 26 2012

Accession Number: WOS:000306725200074

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624

ISSN: 1932-7447

eISSN: 1932-7455

Title: Anharmonicity of the vibrational modes of phase-change materials: A far-infrared, terahertz, and Raman study**Author(s):** Shportko, K (Shportko, K.); Zalden, P (Zalden, P.); Lindenberg, AM (Lindenberg, A. M.); Ruckamp, R (Rueckamp, R.); Gruninger, M (Grueninger, M.)**Source:** VIBRATIONAL SPECTROSCOPY **Volume:** 95 **Pages:** 51-56 **DOI:** 10.1016/j.vibspec.2018.01.005 **Published:** MAR 2018**Accession Number:** WOS:000428832000008**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Gruninger, Markus		0000-0002-6550-8054
Zalden, Peter		0000-0002-8530-0576
Shportko, Kostiantyn		0000-0001-6813-4871

ISSN: 0924-2031

eISSN: 1873-3697

Title: Caution! Static Supercell Calculations of Defect Migration in Higher Symmetry ABX₃ Perovskite Halides May Be Unreliable: A Case Study of Methylammonium Lead Iodide**Author(s):** De Souza, RA (De Souza, Roger A.); Kemp, D (Kemp, Dennis); Wolf, MJ (Wolf, Matthew J.); Ramadan, AHH (Ramadan, Amr H. H.)**Source:** JOURNAL OF PHYSICAL CHEMISTRY LETTERS **DOI:** 10.1021/acs.jpcllett.2c02984 **Early Access Date:** DEC 2022**Accession Number:** WOS:000893059700001**PubMed ID:** 36454641**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Kemp, Dennis		0000-0003-1237-159X

ISSN: 1948-7185

Title: Recipes for superior ionic conductivities in thin-film ceria-based electrolytes**Author(s):** Kemp, D (Kemp, Dennis); Tarancon, A (Tarancon, Albert); De Souza, RA (De Souza, Roger A.)**Source:** PHYSICAL CHEMISTRY CHEMICAL PHYSICS **Volume:** 24 **Issue:** 21 **Pages:** 12926-12936 **DOI:** 10.1039/d2cp01335e **Early Access Date:** MAY 2022 **Published:** JUN 1 2022**Accession Number:** WOS:000798007300001**PubMed ID:** 35593679**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Tarancon, Albert	AAJ-6513-2020	0000-0002-1933-2406
Kemp, Dennis	GYA-4386-2022	0000-0003-1237-159X

De Souza, Roger A. | F-3902-2011 | 0000-0001-7721-4128

ISSN: 1463-9076

eISSN: 1463-9084

Title: The Science and Technology of Phase Change Materials

Author(s): Wuttig, M (Wuttig, Matthias); Raoux, S (Raoux, Simone)

Source: ZEITSCHRIFT FUR ANORGANISCHE UND ALLGEMEINE CHEMIE **Volume:** 638 **Issue:** 15 **Special Issue:** SI **Pages:** 2455-2465 **DOI:** 10.1002/zaac.201200448 **Published:** DEC 2012

Accession Number: WOS:000312699400006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Raoux, Simone	G-3920-2016	

ISSN: 0044-2313

eISSN: 1521-3749

Title: Lattice Dynamics of Sb₂Se₃ from Inelastic Neutron and X-Ray Scattering

Author(s): Herrmann, MG (Herrmann, Markus G.); Stoffel, RP (Stoffel, Ralf P.); Sergueev, I (Sergueev, Ilya); Wille, HC (Wille, Hans-Christian); Leupold, O (Leupold, Olaf); Haddouch, MA (Ait Haddouch, Mohammed); Sala, G (Sala, Gabriele); Abernathy, DL (Abernathy, Doug L.); Voigt, J (Voigt, Joerg); Hermann, RP (Hermann, Raphael P.); Dronskowski, R (Dronskowski, Richard); Friese, K (Friese, Karen)

Source: PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS **Volume:** 257 **Issue:** 6 **Article Number:** 2000063 **DOI:** 10.1002/pssb.202000063 **Early Access Date:** APR 2020 **Published:** JUN 2020

Accession Number: WOS:000527883000001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Hermann, Raphael P	F-6257-2013	0000-0002-6138-5624
Sergueev, Ilya	N-6591-2013	0000-0002-7614-2238
Sala, Gabriele	W-2778-2018	0000-0002-6654-0275
Abernathy, Douglas	A-3038-2012	0000-0002-3533-003X
Herrmann, Markus		0000-0002-1091-491X
Stoffel, Ralf Peter		0000-0001-6743-3693

ISSN: 0370-1972

eISSN: 1521-3951

Title: Unraveling the Origin and Mechanism of Nanofilament Formation in Polycrystalline SrTiO₃ Resistive Switching Memories

Author(s): Kwon, DH (Kwon, Deok-Hwang); Lee, S (Lee, Shinbuhm); Kang, CS (Kang, Chan Soon); Choi, YS (Choi, Yong Seok); Kang, S (Kang, Sungjin); Cho, HL (Cho, Hae Lim); Sohn, W (Sohn, Woonbae); Jo, J (Jo, Janghyun); Lee, SY (Lee, Seung-Yong); Oh, KH (Oh, Kyu Hwan); Noh, TW (Noh, Toe Won); De Souza, RA (De Souza, Roger A.); Martin, M (Martin, Manfred); Kim, M (Kim, Miyoung)

Source: ADVANCED MATERIALS **Volume:** 31 **Issue:** 28 **Article Number:** 1901322 **DOI:** 10.1002/adma.201901322 **Published:** JUL 2019

Accession Number: WOS:000477972300009

PubMed ID: 31106484

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Lee, Seung-Yong	AAV-5641-2021	
Jo, Janghyun	AAP-1292-2021	
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Martin, Manfred	V-3592-2017	0000-0001-9046-050X

ISSN: 0935-9648**eISSN:** 1521-4095**Title:** Crystal growth of Ge₂Sb₂Te₅ at high temperatures**Author(s):** Ranneberger, I (Ranneberger, I); Zhang, W (Zhang, W.); Mazzarello, R (Mazzarello, R.)**Source:** MRS COMMUNICATIONS **Volume:** 8 **Issue:** 3 **Pages:** 1018-1023 **DOI:**10.1557/mrc.2018.131 **Published:** SEP 2018**Accession Number:** WOS:000448887900045**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
xjtu, camprano	Q-1904-2015	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	P-3546-2019	

ISSN: 2159-6859**eISSN:** 2159-6867**Title:** Quantification of Carrier Density Gradients along Axially Doped Silicon Nanowires Using Infrared Nanoscopy**Author(s):** Jung, LN (Jung, Lena); Pries, J (Pries, Julian); Mass, TWW (Mass, Tobias W. W.); Lewin, M (Lewin, Martin); Boyuk, DS (Boyuk, Dmitriy S.); Mohabir, AT (Mohabir, Amar T.); Filler, MA (Filler, Michael A.); Wuttig, M (Wuttig, Matthias); Taubner, T (Taubner, Thomas)**Source:** ACS PHOTONICS **Volume:** 6 **Issue:** 7 **Pages:** 1744-1754 **DOI:**10.1021/acsp Photonics.9b00466 **Published:** JUL 2019**Accession Number:** WOS:000476684300022**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Taubner, Thomas	E-8779-2012	0000-0002-0628-3043
Mass, Tobias		0000-0002-9840-5051
Wuttig, Matthias		0000-0003-1498-1025
Pries, Julian		0000-0002-5978-8213
Lewin, Martin		0000-0003-4036-2252

ISSN: 2330-4022**Title:** Monatomic phase change memory**Author(s):** Salinga, M (Salinga, Martin); Kersting, B (Kersting, Benedikt); Ronneberger, I (Ronneberger, Ider); Jonnalagadda, VP (Jonnalagadda, Vara Prasad); Vu, XT (Vu, Xuan Thang); Le Gallo, M (Le Gallo, Manuel); Giannopoulos, I (Giannopoulos, Iason); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Mazzarello, R (Mazzarello, Riccardo); Sebastian, A (Sebastian, Abu)**Source:** NATURE MATERIALS **Volume:** 17 **Issue:** 8 **Pages:** 681+ **DOI:** 10.1038/s41563-018-0110-

9 **Published:** AUG 2018

Accession Number: WOS:000439573400011

PubMed ID: 29915424

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Vu, Xuan Thang	U-5435-2017	0000-0001-6797-2443
Vu, Xuan Thang	ACP-0401-2022	
Vu, Xuan Thang	AAR-1447-2020	0000-0001-6797-2443
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Salinga, Martin	B-6796-2011	0000-0002-2228-6244
Le Gallo, Manuel		0000-0003-1600-6151
Sebastian, Abu	C-1652-2009	0000-0001-5603-5243

ISSN: 1476-1122

eISSN: 1476-4660

Title: Local Structural Origin of the Crystallization Tendency of Pure and Alloyed Sb

Author(s): Ronneberger, I (Ronneberger, Ider); Chen, YH (Chen, Yuhuan); Zhang, W (Zhang, Wei); Mazzarello, R (Mazzarello, Riccardo)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 13 **Issue:** 4 **Article Number:** 1800552 **DOI:** 10.1002/pssr.201800552 **Published:** APR 2019

Accession Number: WOS:000465029000012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	P-3546-2019	
xjtu, campano	Q-1904-2015	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 1862-6254

eISSN: 1862-6270

Title: Utilizing the Switching Stochasticity of HfO₂/TiO_x-Based ReRAM Devices and the Concept of Multiple Device Synapses for the Classification of Overlapping and Noisy Patterns

Author(s): Bengel, C (Bengel, Christopher); Cueppers, F (Cuppers, Felix); Payvand, M (Payvand, Melika); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Menzel, S (Menzel, Stephan)

Source: FRONTIERS IN NEUROSCIENCE **Volume:** 15 **Article Number:** 661856 **DOI:** 10.3389/fnins.2021.661856 **Published:** JUN 7 2021

Accession Number: WOS:000663741500001

PubMed ID: 34163323

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Bengel, Christopher		0000-0002-2892-9837

eISSN: 1662-453X

Title: Role of the Electrode Material on the RESET Limitation in Oxide ReRAM Devices

Author(s): Schonhals, A (Schoenhals, Alexander); Rosario, CMM (Rosario, Carlos M. M.); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan); Wouters, DJ (Wouters, Dirk J.)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 4 **Issue:** 2 **Article Number:** 1700243 **DOI:** 10.1002/aelm.201700243 **Published:** FEB 2018

Accession Number: WOS:000424888600002

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Rosário, Carlos M. M.	GRJ-9081-2022	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Schonhals, Alexander		0000-0003-0118-6321
Rosario, Carlos		0000-0002-3285-2027

ISSN: 2199-160X

Title: How to Identify Lone Pairs, Van der Waals Gaps, and Metavalent Bonding Using Charge and Pair Density Methods: From Elemental Chalcogens to Lead Chalcogenides and Phase-Change Materials

Author(s): Raty, JY (Raty, Jean-Yves); Gatti, C (Gatti, Carlo); Schon, CF (Schoen, Carl-Friedrich); Wuttig, M (Wuttig, Matthias)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 15 **Issue:** 11 **Article Number:** 2000534 **DOI:** 10.1002/pssr.202000534 **Early Access Date:** SEP 2021 **Published:** NOV 2021

Accession Number: WOS:000693517800001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Gatti, Carlo	B-7410-2009	0000-0002-0047-1596
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1862-6254

eISSN: 1862-6270

Title: Formation of resonant bonding during growth of ultrathin GeTe films

Author(s): Wang, RN (Wang, Ruining); Zhang, W (Zhang, Wei); Momand, J (Momand, Jamo); Ronneberger, I (Ronneberger, Ider); Boschker, JE (Boschker, Jos E.); Mazzarello, R (Mazzarello, Riccardo); Kooi, BJ (Kooi, Bart J.); Riechert, H (Riechert, Henning); Wuttig, M (Wuttig, Matthias); Calarco, R (Calarco, Raffaella)

Source: NPG ASIA MATERIALS **Volume:** 9 **Article Number:** e396 **DOI:** 10.1038/am.2017.95 **Published:** JUN 30 2017

Accession Number: WOS:000404685800006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Kooi, Bart J.	GVS-9057-2022	
Boschker, Jos	L-6517-2018	0000-0001-9122-2079
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025

xjtu, campano	Q-1904-2015	
Institute, Zernike	W-7033-2019	
Kooi, Bart J.		0000-0002-0311-4105
Momand, Jamo		0000-0001-5153-2427

ISSN: 1884-4049

eISSN: 1884-4057

Title: The potential of chemical bonding to design crystallization and vitrification kinetics

Author(s): Persch, C (Persch, Christoph); Muller, MJ (Mueller, Maximilian J.); Yadav, A (Yadav, Aakash); Pries, J (Pries, Julian); Honne, N (Honne, Natalie); Kerres, P (Kerres, Peter); Wei, S (Wei, Shuai); Tanaka, H (Tanaka, Hajime); Fantini, P (Fantini, Paolo); Varesi, E (Varesi, Enrico); Pellizzer, F (Pellizzer, Fabio); Wuttig, M (Wuttig, Matthias)

Source: NATURE COMMUNICATIONS **Volume:** 12 **Issue:** 1 **Article Number:** 4978 **DOI:** 10.1038/s41467-021-25258-3 **Published:** AUG 17 2021

Accession Number: WOS:000686662300039

PubMed ID: 34404800

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Wei, Shuai	I-7469-2018	0000-0003-3051-2480
Tanaka, Hajime	A-9653-2008	0000-0002-4444-1890
Persch, Christoph		0000-0001-5204-9197
Pries, Julian		0000-0002-5978-8213
Yadav, Aakash		0000-0002-4268-4709
Muller, Maximilian		0000-0003-0447-8338

eISSN: 2041-1723

Title: Understanding the ionic conductivity maximum in doped ceria: trapping and blocking

Author(s): Koettgen, J (Koettgen, Julius); Grieshammer, S (Grieshammer, Steffen); Hein, P (Hein, Philipp); Grope, BOH (Grope, Benjamin O. H.); Nakayama, M (Nakayama, Masanobu); Martin, M (Martin, Manfred)

Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS **Volume:** 20 **Issue:** 21 **Pages:** 14291-14321 **DOI:** 10.1039/c7cp08535d **Published:** JUN 7 2018

Accession Number: WOS:000434246300002

PubMed ID: 29479588

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Martin, Manfred	V-3592-2017	0000-0001-9046-050X
Neitzel-Grieshammer, Steffen	D-7040-2018	0000-0001-7583-6417
Koettgen, Julius	F-7034-2014	0000-0002-8260-4793
Nakayama, Masanobu	D-5396-2015	
Hein, Philipp	B-9233-2018	0000-0002-3029-9467
Nakayama, Masanobu		0000-0002-5113-053X

ISSN: 1463-9076

eISSN: 1463-9084

Title: Advanced Optical Programming of Individual Meta-Atoms Beyond the Effective Medium Approach

Author(s): Michel, AKU (Michel, Ann-Katrin U.); Hessler, A (Hessler, Andreas); Meyer, S (Meyer, Sebastian); Pries, J (Pries, Julian); Yu, Y (Yu, Yuan); Kalix, T (Kalix, Thomas); Lewin, M (Lewin, Martin); Hanss, J (Hanss, Julian); De Rose, A (De Rose, Angela); Mass, TWW (Mass, Tobias W. W.); Wuttig, M (Wuttig, Matthias); Chigrin, DN (Chigrin, Dmitry N.); Taubner, T (Taubner, Thomas)

Source: ADVANCED MATERIALS **Volume:** 31 **Issue:** 29 **Article Number:** 1901033 **DOI:** 10.1002/adma.201901033 **Published:** JUL 2019

Accession Number: WOS:000477975900011

PubMed ID: 31131947

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Taubner, Thomas	E-8779-2012	0000-0002-0628-3043
Heßler, Andreas	AAI-9487-2021	0000-0001-9446-4065
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Chigrin, Dmitry N	A-5204-2008	0000-0002-8197-707X
Michel, Ann-Katrin U.	AAI-6083-2020	0000-0002-6130-3991
Lewin, Martin		0000-0003-4036-2252
Mass, Tobias		0000-0002-9840-5051
Pries, Julian		0000-0002-5978-8213

ISSN: 0935-9648

eISSN: 1521-4095

Title: Revisiting the Nature of Chemical Bonding in Chalcogenides to Explain and Design their Properties

Author(s): Wuttig, M (Wuttig, Matthias); Schoen, CF (Schoen, Carl-Friedrich); Loetfering, J (Loetfering, Jakob); Golub, P (Golub, Pavlo); Gatti, C (Gatti, Carlo); Raty, JY (Raty, Jean-Yves)

Source: ADVANCED MATERIALS **DOI:** 10.1002/adma.202208485 **Early Access Date:** MAR 2023

Accession Number: WOS:000956917700001

PubMed ID: 36456187

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 0935-9648

eISSN: 1521-4095

Title: Retarding Ostwald ripening through Gibbs adsorption and interfacial complexions leads to high-performance SnTe thermoelectrics

Author(s): An, DC (An, Decheng); Wang, JJ (Wang, Jiangjing); Zhang, J (Zhang, Jie); Zhai, X (Zhai, Xin); Kang, ZP (Kang, Zepeng); Fan, WH (Fan, Wenhao); Yan, J (Yan, Jian); Liu, YQ (Liu, Yequn); Lu, L (Lu, Lu); Jia, CL (Jia, Chun-Lin); Wuttig, M (Wuttig, Matthias); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Chen, SP (Chen, Shaoping); Wang, WX (Wang, Wenxian); Snyder, GJ (Snyder, G. Jeffrey); Yu, Y (Yu, Yuan)

Source: ENERGY & ENVIRONMENTAL SCIENCE **Volume:** 14 **Issue:** 10 **Pages:** 5469-5479 **DOI:** 10.1039/d1ee01977e **Early Access Date:** SEP 2021 **Published:** OCT 13 2021

Accession Number: WOS:000694025200001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Snyder, G. Jeffrey	E-4453-2011	0000-0003-1414-8682
An, Decheng	ABA-9572-2021	0000-0001-5576-2879
Yan, Jian		0000-0002-4486-712X

ISSN: 1754-5692
eISSN: 1754-5706

Title: High-performance and stable AgSbTe₂-based thermoelectric materials for near room temperature applications

Author(s): Wu, Y (Wu, Yi); Qiu, PF (Qiu, Pengfei); Yu, Y (Yu, Yuan); Xiong, YF (Xiong, Yifei); Deng, TT (Deng, Tingting); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Wuttig, M (Wuttig, Matthias); Shi, X (Shi, Xun); Chen, LD (Chen, Lidong)

Source: JOURNAL OF MATERIONICS **Volume:** 8 **Issue:** 6 **Pages:** 1095-1103 **DOI:** 10.1016/j.jmat.2022.07.005 **Early Access Date:** NOV 2022 **Published:** NOV 2022

Accession Number: WOS:000893268000001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Chen, Lidong	F-2705-2010	
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600

ISSN: 2352-8478

Title: Unconventional two-dimensional germanium dichalcogenides

Author(s): Wang, JJ (Wang, Jiangjing); Ronneberger, I (Ronneberger, Ider); Zhou, L (Zhou, Ling); Lu, L (Lu, Lu); Deringer, VL (Deringer, Volker L.); Zhang, BY (Zhang, Baiyu); Tian, L (Tian, Lin); Du, HC (Du, Hongchu); Jia, CL (Jia, Chunlin); Qian, XF (Qian, Xiaofeng); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo); Zhang, W (Zhang, Wei)

Source: NANOSCALE **Volume:** 10 **Issue:** 16 **Pages:** 7363-7368 **DOI:** 10.1039/c8nr01747f **Published:** APR 28 2018

Accession Number: WOS:000431030000005

PubMed ID: 29637969

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Wang, Jiangjing	AAD-2136-2021	0000-0001-7327-8159
Deringer, Volker	O-6003-2018	0000-0001-6873-0278
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
xjtu, camprano	Q-1904-2015	
Qian, Xiaofeng	P-4715-2016	0000-0003-1627-288X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Baiyu		0000-0002-3615-3979
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2040-3364

eISSN: 2040-3372

Title: Structural, electronic and kinetic properties of the phase-change material Ge₂Sb₂Te₅ in the liquid state

Author(s): Schumacher, M (Schumacher, Mathias); Weber, H (Weber, Hans); Jovari, P (Jovari, Pal); Tsuchiya, Y (Tsuchiya, Yoshimi); Youngs, TGA (Youngs, Tristan G. A.); Kaban, I (Kaban, Ivan); Mazzarello, R (Mazzarello, Riccardo)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 27434 **DOI:** 10.1038/srep27434 **Published:**

JUN 8 2016

Accession Number: WOS:000377429300001

PubMed ID: 27272222

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X

ISSN: 2045-2322

Title: Impact of defect occupation on conduction in amorphous Ge₂Sb₂Te₅

Author(s): Kaes, M (Kaes, Matthias); Salinga, M (Salinga, Martin)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 31699 **DOI:** 10.1038/srep31699 **Published:** AUG 16 2016

Accession Number: WOS:000392125900001

PubMed ID: 27526783

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Salinga, Martin S	B-6796-2011	0000-0002-2228-6244

ISSN: 2045-2322

Title: Materials Screening for Disorder-Controlled Chalcogenide Crystals for Phase-Change Memory Applications

Author(s): Xu, YZ (Xu, Yazhi); Wang, XD (Wang, Xudong); Zhang, W (Zhang, Wei); Schafer, L (Schaefer, Lisa); Reindl, J (Reindl, Johannes); vom Bruch, F (vom Bruch, Felix); Zhou, YX (Zhou, Yuxing); Evang, V (Evang, Valentin); Wang, JJ (Wang, Jiang-Jing); Deringer, VL (Deringer, Volker L.); Ma, E (Ma, En); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo)

Source: ADVANCED MATERIALS **Volume:** 33 **Issue:** 9 **Article Number:** 2006221 **DOI:** 10.1002/adma.202006221 **Early Access Date:** JAN 2021 **Published:** MAR 2021

Accession Number: WOS:000611855400001

PubMed ID: 33491816

Author Identifiers:

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Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	P-3546-2019	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 0935-9648

eISSN: 1521-4095

Title: Improved Solubility in Metavalently Bonded Solid Leads to Band Alignment, Ultralow Thermal Conductivity, and High Thermoelectric Performance in SnTe

Author(s): Liu, YQ (Liu, Yuqi); Zhang, XM (Zhang, Xuemei); Nan, PF (Nan, Pengfei); Zou, B (Zou, Bo); Zhang, QT (Zhang, Qingtang); Hou, YX (Hou, Yunxiang); Li, S (Li, Shuang); Gong, YR (Gong, Yaru); Liu, QF (Liu, Qingfeng); Ge, BH (Ge, Binghui); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Yu, Y (Yu, Yuan); Zhang, YS (Zhang, Yongsheng); Chen, G (Chen, Guang); Wuttig, M (Wuttig, Matthias); Tang, GD (Tang, Guodong)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 32 **Issue:** 47 **DOI:** 10.1002/adfm.202209980 **Early Access Date:** SEP 2022 **Published:** NOV 2022

Accession Number: WOS:000860248800001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600

ISSN: 1616-301X

eISSN: 1616-3028

Title: Discovering Electron-Transfer-Driven Changes in Chemical Bonding in Lead Chalcogenides (PbX, where X = Te, Se, S, O)**Author(s):** Maier, S (Maier, Stefan); Steinberg, S (Steinberg, Simon); Cheng, YD (Cheng, Yudong); Schon, CF (Schon, Carl-Friedrich); Schumacher, M (Schumacher, Mathias); Mazzarello, R (Mazzarello, Riccardo); Golub, P (Golub, Pavlo); Nelson, R (Nelson, Ryky); Cojocar-Miredin, O (Cojocar-Miredin, Oana); Raty, JY (Raty, Jean-Yves); Wuttig, M (Wuttig, Matthias)**Source:** ADVANCED MATERIALS **Volume:** 32 **Issue:** 49 **Article Number:** 2005533 **DOI:** 10.1002/adma.202005533 **Early Access Date:** NOV 2020 **Published:** DEC 2020**Accession Number:** WOS:000583234800001**PubMed ID:** 33135228**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Steinberg, Simon	ABF-6457-2020	0000-0001-8022-7018
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Golub, Pavlo	AAS-6765-2020	0000-0003-0834-4281

ISSN: 0935-9648

eISSN: 1521-4095

Title: Trade-Off Between Data Retention and Switching Speed in Resistive Switching ReRAM Devices **Author(s):** Siegel, S (Siegel, Sebastian); Baeumer, C (Baeumer, Christoph); Gutsche, A (Gutsche, Alexander); von Witzleben, M (von Witzleben, Moritz); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan); Dittmann, R (Dittmann, Regina)**Source:** ADVANCED ELECTRONIC MATERIALS **Volume:** 7 **Issue:** 1 **Article Number:** 2000815 **DOI:** 10.1002/aelm.202000815 **Early Access Date:** NOV 2020 **Published:** JAN 2021**Accession Number:** WOS:000594730200001**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Baeumer, Christoph	AHA-1151-2022	
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Siegel, Sebastian		0000-0001-9922-4861
von Witzleben, Moritz		0000-0002-1350-7092
Gutsche, Alexander		0000-0002-5574-2349
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 2199-160X

Title: Bonding similarities and differences between Y-Sb-Te and Sc-Sb-Te phase-change memory materials**Author(s):** Zhou, YX (Zhou, Yuxing); Sun, L (Sun, Liang); Zewdie, GM (Zewdie, Getasew M.); Mazzarello, R (Mazzarello, Riccardo); Deringer, VL (Deringer, Volker L.); Ma, E (Ma, Evan); Zhang, W (Zhang, Wei)**Source:** JOURNAL OF MATERIALS CHEMISTRY C **Volume:** 8 **Issue:** 11 **Pages:** 3646-3654 **DOI:** 10.1039/d0tc00096e **Published:** MAR 21 2020

Accession Number: WOS:000528591300035

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
xjtu, campnano	Q-1904-2015	
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Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zewdie, Getasew Mulualem		0000-0002-6158-878X
Deringer, Volker		0000-0001-6873-0278

ISSN: 2050-7526

eISSN: 2050-7534

Title: Unraveling Crystallization Mechanisms and Electronic Structure of Phase-Change Materials by Large-Scale Ab Initio Simulations

Author(s): Xu, YZ (Xu, Yazhi); Zhou, YX (Zhou, Yuxing); Wang, XD (Wang, Xu-Dong); Zhang, W (Zhang, Wei); Ma, E (Ma, En); Deringer, VL (Deringer, Volker L.); Mazzarello, R (Mazzarello, Riccardo)

Source: ADVANCED MATERIALS **Volume:** 34 **Issue:** 11 **Article Number:** 2109139 **DOI:** 10.1002/adma.202109139 **Early Access Date:** FEB 2022 **Published:** MAR 2022

Accession Number: WOS:000750142600001

PubMed ID: 34994023

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 0935-9648

eISSN: 1521-4095

Title: Simultaneous calorimetric and quick-EXAFS measurements to study the crystallization process in phase-change materials

Author(s): Zalden, P (Zalden, Peter); Aquilanti, G (Aquilanti, Giuliana); Prestipino, C (Prestipino, Carmello); Mathon, O (Mathon, Olivier); Andre, B (Andre, Berangere); Wuttig, M (Wuttig, Matthias); Coulet, MV (Coulet, Marie-Vanessa)

Source: JOURNAL OF SYNCHROTRON RADIATION **Volume:** 19 **Pages:** 806-813 **DOI:** 10.1107/S090904951202612X **Part:** 5 **Published:** SEP 2012

Accession Number: WOS:000307700100019

PubMed ID: 22898961

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Prestipino, Carmelo	AAI-2084-2019	
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zalden, Peter		0000-0002-8530-0576
COULET, Marie-Vanessa		0000-0001-6068-1424

ISSN: 0909-0495

Title: Aging mechanisms in amorphous phase-change materials

Author(s): Raty, JY (Raty, Jean Yves); Zhang, W (Zhang, Wei); Luckas, J (Luckas, Jennifer); Chen, C (Chen, Chao); Mazzarello, R (Mazzarello, Riccardo); Bichara, C (Bichara, Christophe); Wuttig, M (Wuttig, Matthias)

Source: NATURE COMMUNICATIONS **Volume:** 6 **Article Number:** 7467 **DOI:** 10.1038/ncomms8467 **Published:** JUN 2015

Accession Number: WOS:000357177600005

PubMed ID: 26105012

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Author	Web of Science ResearcherID	ORCID Number
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Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Chen, Chao		0000-0001-5851-1370

ISSN: 2041-1723

Title: Highly Confined and Switchable Mid-Infrared Surface Phonon Polariton Resonances of Planar Circular Cavities with a Phase Change Material

Author(s): Sumikura, H (Sumikura, Hisashi); Wang, T (Wang, Tao); Li, PN (Li, Peining); Michel, AKU (Michel, Ann-Katrin U.); Hessler, A (Hessler, Andreas); Jung, L (Jung, Lena); Lewin, M (Lewin, Martin); Wuttig, M (Wuttig, Matthias); Chigrin, DN (Chigrin, Dmitry N.); Taubner, T (Taubner, Thomas)

Source: NANO LETTERS **Volume:** 19 **Issue:** 4 **Pages:** 2549-2554 **DOI:** 10.1021/acs.nanolett.9b00304 **Published:** APR 2019

Accession Number: WOS:000464769100048

PubMed ID: 30920839

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Sumikura, Hisashi		0000-0002-8203-6685
Lewin, Martin		0000-0003-4036-2252

ISSN: 1530-6984

eISSN: 1530-6992

Title: Element-resolved atomic structure imaging of rocksalt Ge₂Sb₂Te₅ phase-change material

Author(s): Zhang, B (Zhang, Bin); Zhang, W (Zhang, Wei); Shen, ZJ (Shen, Zhenju); Chen, YJ (Chen, Yongjin); Li, JX (Li, Jixue); Zhang, SB (Zhang, Shengbai); Zhang, Z (Zhang, Ze); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo); Ma, E (Ma, Evan); Han, XD (Han, Xiaodong)

Source: APPLIED PHYSICS LETTERS **Volume:** 108 **Issue:** 19 **Article Number:** 191902 **DOI:** 10.1063/1.4949011 **Published:** MAY 9 2016

Accession Number: WOS:000377023500022

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	P-3546-2019	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

han, xiao	HDN-9782-2022	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
xjtu, campnano	Q-1904-2015	
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Ma, En	A-3232-2010	

ISSN: 0003-6951

eISSN: 1077-3118

Title: Enhancing the thermoelectric performance of γ -Zn₄Sb₃ via progressive incorporation of Zn interstitials

Author(s): Wang, JJ (Wang, Jiang-Jing); Sun, SY (Sun, Suyang); Lu, L (Lu, Lu); Du, HC (Du, Hongchu); Jia, CL (Jia, Chun-Lin); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Yang, J (Yang, Jian); Liu, GW (Liu, Guiwu); Zhou, CJ (Zhou, Chongjian); Qiao, GJ (Qiao, Guanjun); Shi, ZQ (Shi, Zhongqi); Ma, E (Ma, En); Ge, BZ (Ge, Bangzhi); Yu, Y (Yu, Yuan); Wuttig, M (Wuttig, Matthias); Zhang, W (Zhang, Wei)

Source: NANO ENERGY **Volume:** 104 **Article Number:** 107967 **DOI:** 10.1016/j.nanoen.2022.107967 **Early**

Access Date: NOV 2022 **Part:** A **Published:** DEC 15 2022

Accession Number: WOS:000896970700003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Shi, Zhongqi	J-5923-2018	0000-0001-7742-3528
Zhang, Wei	P-3546-2019	

ISSN: 2211-2855

eISSN: 2211-3282



Title: A Compact Model for the Electroforming Process of Memristive Devices

Author(s): La Torre, C (La Torre, Camilla); Kindsmuller, A (Kindsmueller, Andreas); Son, S (Son, Seokki); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas); Menzel, S (Menzel, Stephan)

Book Group Author(s): IEEE

Source: 24TH IEEE EUROPEAN CONFERENCE ON CIRCUIT THEORY AND DESIGN (ECCTD 2020) **Published:** 2020

Accession Number: WOS:000631927000040

Conference Title: 24th IEEE European Conference on Circuit Theory and Design (ECCTD)

Conference Date: SEP 07-10, 2020

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Conference Sponsors: Inst Elect & Elect Engineers, Inst Elect & Elect Engineers Circuits & Syst Soc, Tech Univ Sofia, Italian Soc Chaos & Complex

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Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Rana, Vikas	GLV-5735-2022	

ISBN: 978-1-7281-7183-8

Title: Pulsed laser deposition of SrRuO₃ thin-films: The role of the pulse repetition rate

Author(s): Schraknepper, H (Schraknepper, H.); Baumer, C (Baeumer, C.); Gunkel, F (Gunkel, F.); Dittmann, R (Dittmann, R.); De Souza, RA (De Souza, R. A.)

Source: APL MATERIALS **Volume:** 4 **Issue:** 12 **Article Number:** 126109 **DOI:** 10.1063/1.4972996 **Published:** DEC 2016

Accession Number: WOS:000391991100010

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Baeumer, Christoph	AHA-1151-2022	
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 2166-532X

Title: Low-Current and High-Endurance Logic Operations in 4F(2)-compatible TaO_x-based Complementary Resistive Switches

Author(s): Breuer, T (Breuer, T.); Kim, W (Kim, W.); Menzel, S (Menzel, S.); Rana, V (Rana, V.); Siemon, A (Siemon, A.); Linn, E (Linn, E.); Waser, R (Waser, R.)

Book Group Author(s): IEEE

Source: 2014 IEEE SILICON NANOELECTRONICS WORKSHOP (SNW) **Book Series:** IEEE Silicon

Nanoelectronics Workshop **Published:** 2014

Accession Number: WOS:000393376800034

Conference Title: IEEE Silicon Nanoelectronics Workshop (SNW)

Conference Date: JUN 08-09, 2014

Conference Location: Honolulu, HI

Conference Sponsors: IEEE

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Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Breuer, Thomas		0000-0001-6995-9226

ISSN: 2161-4636

ISBN: 978-1-4799-5677-7

Title: Resistive Switching of Individual, Chemically Synthesized TiO₂ Nanoparticles

Author(s): Schmidt, DO (Schmidt, Dirk Oliver); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Zhang, HH (Zhang, Hehe); La Torre, C (La Torre, Camilla); Besmehn, A (Besmehn, Astrid); Noyong, M (Noyong, Michael); Waser, R (Waser, Rainer); Simon, U (Simon, Ulrich)

Source: SMALL **Volume:** 11 **Issue:** 48 **Pages:** 6444-6456 **DOI:** 10.1002/sml.201502100 **Published:** DEC 22 2015

Accession Number: WOS:000367917500010

PubMed ID: 26540646

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Zhang, Hehe	ABE-9886-2021	0000-0002-9346-6808
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Besmehn, Astrid		0000-0001-8045-9118

ISSN: 1613-6810

eISSN: 1613-6829

Title: Impact of the interplay between nonstoichiometry and kinetic energy of the plume species on the growth mode of SrTiO₃ thin films

Author(s): Xu, C (Xu, C.); Wicklein, S (Wicklein, S.); Sambri, A (Sambri, A.); Amoruso, S (Amoruso, S.); Moors, M (Moors, M.); Dittmann, R (Dittmann, R.)

Source: JOURNAL OF PHYSICS D-APPLIED PHYSICS **Volume:** 47 **Issue:** 3 **Special Issue:** SI **Article Number:** 034009 **DOI:** 10.1088/0022-3727/47/3/034009 **Published:** JAN 22 2014

Accession Number: WOS:000329116000010

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Author	Web of Science ResearcherID	ORCID Number
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Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
amoruso, salvatore	E-3941-2012	0000-0002-1011-3215
Moors, Marco		0000-0002-3340-9756

ISSN: 0022-3727

Title: Pulsed laser ablation of complex oxides: The role of congruent ablation and preferential scattering for the film stoichiometry

Author(s): Wicklein, S (Wicklein, S.); Sambri, A (Sambri, A.); Amoruso, S (Amoruso, S.); Wang, X (Wang, X.); Bruzzese, R (Bruzzese, R.); Koehl, A (Koehl, A.); Dittmann, R (Dittmann, R.)

Source: APPLIED PHYSICS LETTERS **Volume:** 101 **Issue:** 13 **Article Number:** 131601 **DOI:** 10.1063/1.4754112 **Published:** SEP 24 2012

Accession Number: WOS:000309426800016

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
WANG, Xuan	F-1243-2011	0000-0002-0830-0898
wang, xuan	GXF-3679-2022	
amoruso, salvatore	E-3941-2012	0000-0002-1011-3215
Bruzzese, Riccardo		0000-0003-2195-5407
Sambri, Alessia		0000-0003-1228-4226

ISSN: 0003-6951

eISSN: 1077-3118

Title: Control of effective cooling rate upon magnetron sputter deposition of glassy Ge₁₅Te₈₅

Author(s): Pries, J (Pries, Julian); Wei, S (Wei, Shuai); Hoff, F (Hoff, Felix); Lucas, P (Lucas, Pierre); Wuttig, M (Wuttig, Matthias)

Source: SCRIPTA MATERIALIA **Volume:** 178 **Pages:** 223-226 **DOI:** 10.1016/j.scriptamat.2019.11.024 **Published:** MAR 2020

Accession Number: WOS:000510947200044

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wei, Shuai	I-7469-2018	0000-0003-3051-2480
Pries, Julian		0000-0002-5978-8213

ISSN: 1359-6462

Title: Chalcogenide Thermoelectrics Empowered by an Unconventional Bonding Mechanism

Author(s): Yu, Y (Yu, Yuan); Cagnoni, M (Cagnoni, Matteo); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 30 **Issue:** 8 **Special Issue:** SI **Article Number:** 1904862 **DOI:** 10.1002/adfm.201904862 **Early Access Date:** AUG 2019 **Published:** FEB 19 2020 **Accession Number:** WOS:000481131300001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Cojocaru-Miredin, Oana	M-9985-2016	0000-0001-6543-203X
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Wuttig, Matthias		0000-0003-1498-1025
Cagnoni, Matteo		0000-0003-0599-1715

ISSN: 1616-301X

eISSN: 1616-3028

Title: Bond nature of active metal ions in SiO₂-based electrochemical metallization memory cells
Author(s): Cho, DY (Cho, Deok-Yong); Tappertzhofen, S (Tappertzhofen, Stefan); Waser, R (Waser, Rainer); Valov, I (Valov, Ilia)
Source: NANOSCALE **Volume:** 5 **Issue:** 5 **Pages:** 1781-1784 **DOI:** 10.1039/c3nr34148h **Published:** 2013
Accession Number: WOS:000314931900007
PubMed ID: 23354222
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Cho, Deok-Yong	I-4696-2013	0000-0001-5789-8286
Tappertzhofen, Stefan	N-6330-2014	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2040-3364

Title: Dependence of the SET switching variability on the initial state in HfO_x-based ReRAM
Author(s): La Torre, C (La Torre, Camilla); Fleck, K (Fleck, Karsten); Starschich, S (Starschich, Sergej); Linn, E (Linn, Eike); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)
Source: PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE **Volume:** 213 **Issue:** 2 **Pages:** 316-319 **DOI:** 10.1002/pssa.201532375 **Published:** FEB 2016
Accession Number: WOS:000370188700013
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Starschich, Sergej	R-7580-2016	

ISSN: 1862-6300

eISSN: 1862-6319

Title: Dynamics of the metal-insulator transition of donor-doped SrTiO₃
Author(s): Meyer, R (Meyer, Rene); Zurhelle, AF (Zurhelle, Alexander F.); De Souza, RA (De Souza, Roger A.); Waser, R (Waser, Rainer); Gunkel, F (Gunkel, Felix)
Source: PHYSICAL REVIEW B **Volume:** 94 **Issue:** 11 **DOI:** 10.1103/PhysRevB.94.115408 **Published:** SEP 6 2016
Accession Number: WOS:000383232800009
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Zurhelle, Alexander	C-7316-2016	0000-0002-8179-9605
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128

ISSN: 2469-9950

eISSN: 2469-9969

Title: Spatio-Temporal Correlations in Memristive Crossbar Arrays due to Thermal Effects

Author(s): Schon, D (Schoen, Daniel); Menzel, S (Menzel, Stephan)

Source: ADVANCED FUNCTIONAL MATERIALS **DOI:** 10.1002/adfm.202213943 **Early Access Date:** FEB 2023

Accession Number: WOS:000940728600001

ISSN: 1616-301X

eISSN: 1616-3028

Title: Processes and Limitations during Filament Formation and Dissolution in GeSx-based ReRAM Memory Cells

Author(s): van den Hurk, J (van den Hurk, Jan); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Valov, I (Valov, Ilia)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 119 **Issue:** 32 **Pages:** 18678-18685 **DOI:** 10.1021/acs.jpcc.5b03622 **Published:** AUG 13 2015

Accession Number: WOS:000359683800074

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
van den Hurk, Jan	F-5508-2010	0000-0001-7710-8325

ISSN: 1932-7447

Title: A Study of the Electroforming Process in 1T1R Memory Arrays

Author(s): Son, S (Son, Seokki); La Torre, C (La Torre, Camilla); Kindsmuller, A (Kindsmuller, Andreas); Rana, V (Rana, Vikas); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON COMPUTER-AIDED DESIGN OF INTEGRATED CIRCUITS AND SYSTEMS **Volume:** 42 **Issue:** 2 **Pages:** 558-568 **DOI:** 10.1109/TCAD.2022.3175947 **Published:** FEB 2023

Accession Number: WOS:000920768600018

ISSN: 0278-0070

eISSN: 1937-4151

Title: Fragile-to-Strong Transition in Phase-Change Material Ge₃Sb₆Te₅

Author(s): Pries, J (Pries, Julian); Weber, H (Weber, Hans); Benke-Jacob, J (Benke-Jacob, Julia); Kaban, I (Kaban, Ivan); Wei, S (Wei, Shuai); Wuttig, M (Wuttig, Matthias); Lucas, P (Lucas, Pierre)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 32 **Issue:** 31 **Article Number:** 2202714 **DOI:** 10.1002/adfm.202202714 **Early Access Date:** MAY 2022 **Published:** AUG 2022

Accession Number: WOS:000794043200001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Wuttig, Matthias		0000-0003-1498-1025
Pries, Julian		0000-0002-5978-8213

ISSN: 1616-301X

eISSN: 1616-3028

Title: Analyses of a 1-layer neuromorphic network using memristive devices with non-continuous resistance levels

Author(s): Siemon, A (Siemon, A.); Ferch, S (Ferch, S.); Heittmann, A (Heittmann, A.); Waser, R (Waser, R.); Wouters, DJ (Wouters, D. J.); Menzel, S (Menzel, S.)

Source: APL MATERIALS **Volume:** 7 **Issue:** 9 **Article Number:** 091110 **DOI:** 10.1063/1.5108658 **Published:** SEP 1 2019

Accession Number: WOS:000489245900006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Wouters, Dirk		0000-0002-6766-8553

ISSN: 2166-532X

Title: Verification of redox-processes as switching and retention failure mechanisms in Nb:SrTiO₃/metal devices

Author(s): Baeumer, C (Baeumer, C.); Raab, N (Raab, N.); Menke, T (Menke, T.); Schmitz, C (Schmitz, C.); Rosezin, R (Rosezin, R.); Muller, P (Mueller, P.); Andre, M (Andre, M.); Feyer, V (Feyer, V.); Bruchhaus, R (Bruchhaus, R.); Gunkel, F (Gunkel, F.); Schneider, CM (Schneider, C. M.); Waser, R (Waser, R.); Dittmann, R (Dittmann, R.)

Source: NANOSCALE **Volume:** 8 **Issue:** 29 **Pages:** 13967-13975 **DOI:** 10.1039/c6nr00824k **Published:** 2016

Accession Number: WOS:000381815000016

PubMed ID: 27089047

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Baeumer, Christoph	AHA-1151-2022	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Baeumer, Christoph		0000-0003-0008-514X
Schmitz, Christoph		0000-0003-4579-2454
Feyer, Vitaliy		0000-0002-7104-5420

ISSN: 2040-3364

eISSN: 2040-3372

Title: Molecular dynamics simulations of oxygen vacancy diffusion in SrTiO₃

Author(s): Schie, M (Schie, Marcel); Marchewka, A (Marchewka, Astrid); Muller, T (Mueller, Thomas); De Souza, RA (De Souza, Roger A.); Waser, R (Waser, Rainer)

Source: JOURNAL OF PHYSICS-CONDENSED MATTER **Volume:** 24 **Issue:** 48 **Article Number:** 485002 **DOI:** 10.1088/0953-8984/24/48/485002 **Published:** DEC 5 2012

Accession Number: WOS:000311105400005

PubMed ID: 23086341

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mueller, Thomas	AAB-7126-2019	0000-0003-1343-5719
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Marchewka, Astrid		0000-0002-1576-1684

ISSN: 0953-8984

eISSN: 1361-648X

Title: Interrelation of Sweep and Pulse Analysis of the SET Process in SrTiO₃ Resistive Switching Memories

Author(s): Fleck, K (Fleck, Karsten); Bottger, U (Boettger, Ulrich); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE ELECTRON DEVICE LETTERS **Volume:** 35 **Issue:** 9 **Pages:** 924-926 **DOI:** 10.1109/LED.2014.2340016 **Published:** SEP 2014

Accession Number: WOS:000341574200011

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0741-3106

eISSN: 1558-0563

Title: Understanding the Structure and Properties of Sesqui-Chalcogenides (i.e., V₂VI₃ or Pn(2)Ch(3) (Pn = Pnictogen, Ch = Chalcogen) Compounds) from a Bonding Perspective

Author(s): Cheng, YD (Cheng, Yudong); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Keutgen, J (Keutgen, Jens); Yu, Y (Yu, Yuan); KUpers, M (KUpers, Michael); Schumacher, M (Schumacher, Mathias); Golub, P (Golub, Pavlo); Raty, JY (Raty, Jean-Yves); Dronskowski, R (Dronskowski, Richard); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **Volume:** 31 **Issue:** 43 **Article Number:** 1904316 **DOI:** 10.1002/adma.201904316 **Early Access Date:** SEP 2019 **Published:** OCT 2019

Accession Number: WOS:000485747200001

PubMed ID: 31489721

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Cojocaru-Miredin, Oana	M-9985-2016	0000-0001-6543-203X
Golub, Pavlo	AAS-6765-2020	0000-0003-0834-4281
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 0935-9648

eISSN: 1521-4095

Title: An associative capacitive network based on nanoscale complementary resistive switches for memory-intensive computing

Author(s): Kavehei, O (Kavehei, Omid); Linn, E (Linn, Eike); Nielen, L (Nielen, Lutz); Tappertzhofen, S (Tappertzhofen, Stefan); Skafidas, E (Skafidas, Efstratios); Valov, I (Valov, Ilia); Waser, R (Waser, Rainer)

Source: NANOSCALE **Volume:** 5 **Issue:** 11 **Pages:** 5119-5128 **DOI:** 10.1039/c3nr00535f **Published:** 2013

Accession Number: WOS:000319008700071

PubMed ID: 23644652

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Kavehei, Omid	C-1294-2012	0000-0002-2753-5553

Tappertzhofen, Stefan	N-6330-2014	
Tappertzhofen, Stefan	AAW-9372-2020	0000-0003-3747-5627
Valov, Ilia	J-7021-2013	0000-0002-0728-7214
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Nielen, Lutz	ABB-4145-2021	
Skafidas, Efstratios		0000-0003-4263-9972

ISSN: 2040-3364

eISSN: 2040-3372

Title: Electronic and magnetic properties of the Ti5O9 Magneli phase

Author(s): Slipukhina, I (Slipukhina, I.); Lezaic, M (Lezaic, M.)

Source: PHYSICAL REVIEW B **Volume:** 90 **Issue:** 15 **Article Number:** 155133 **DOI:**

10.1103/PhysRevB.90.155133 **Published:** OCT 30 2014

Accession Number: WOS:000345636400002

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Lezaic, Marjana	H-8510-2013	0000-0002-7318-9444

ISSN: 2469-9950

eISSN: 2469-9969

Title: Exploring the detection limits of infrared near-field microscopy regarding small buried structures and pushing them by exploiting superlens-related effects

Author(s): Jung, LN (Jung, Lena); Hauer, B (Hauer, Benedikt); Li, PN (Li, Peining); Bornhofft, M (Bornhoefft, Manuel); Mayer, J (Mayer, Joachim); Taubner, T (Taubner, Thomas)

Source: OPTICS EXPRESS **Volume:** 24 **Issue:** 5 **Pages:** 4431-4441 **DOI:** 10.1364/OE.24.004431 **Published:** MAR 7 2016

Accession Number: WOS:000371435000010

PubMed ID: 29092272

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
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Jung, Lena		0000-0002-3377-1309
Li, Peining		0000-0003-3836-3803

ISSN: 1094-4087

Title: The influence of non-stoichiometry on the switching kinetics of strontium-titanate ReRAM devices

Author(s): Fleck, K (Fleck, K.); Aslam, N (Aslam, N.); Hoffmann-Eifert, S (Hoffmann-Eifert, S.); Longo, V (Longo, V.); Roozeboom, F (Roozeboom, F.); Kessels, WMM (Kessels, W. M. M.); Bottger, U (Boettger, U.); Waser, R (Waser, R.); Menzel, S (Menzel, S.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 120 **Issue:** 24 **Article Number:** 244502 **DOI:**

10.1063/1.4972833 **Published:** DEC 28 2016

Accession Number: WOS:000392174000014

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X

Roozeboom, Fred	GOJ-9393-2022	0000-0003-3925-7041
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Kessels, Wilhelmus	B-7251-2018	0000-0002-7630-8226

ISSN: 0021-8979

eISSN: 1089-7550

Title: Detection of filament formation in forming-free resistive switching SrTiO₃ devices with Ti top electrodes
Author(s): Stille, S (Stille, S.); Lenser, C (Lenser, Ch); Dittmann, R (Dittmann, R.); Koehl, A (Koehl, A.); Krug, I (Krug, I.); Muenstermann, R (Muenstermann, R.); Perlich, J (Perlich, J.); Schneider, CM (Schneider, C. M.); Klemradt, U (Klemradt, U.); Waser, R (Waser, R.)

Source: APPLIED PHYSICS LETTERS **Volume:** 100 **Issue:** 22 **Article Number:** 223503 **DOI:** 10.1063/1.4724108 **Published:** MAY 28 2012

Accession Number: WOS:000304823800062

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Klemradt, Uwe	O-2839-2016	0000-0002-1378-5615
Krug, Ingo	G-5338-2013	0000-0003-4579-6674
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Stille, Sebastian		0000-0002-8355-162X
Lenser, Christian		0000-0001-5636-2201

ISSN: 0003-6951

eISSN: 1077-3118

Title: Introduction to new memory paradigms: memristive phenomena and neuromorphic applications

Author(s): Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina); Menzel, S (Menzel, Stephan); Noll, T (Noll, Tobias)

Source: FARADAY DISCUSSIONS **Volume:** 213 **Pages:** 11-27 **DOI:** 10.1039/c8fd90058b **Published:** FEB 1 2019

Accession Number: WOS:000459184500002

PubMed ID: 30740612

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 1359-6640

eISSN: 1364-5498

Title: Endurance of 2 Mbit Based BEOL Integrated ReRAM

Author(s): Kopperberg, N (Kopperberg, Nils); Wiefels, S (Wiefels, Stefan); Hofmann, K (Hofmann, Karl); Otterstedt, J (Otterstedt, Jan); Wouters, DJ (Wouters, Dirk J.); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE ACCESS **Volume:** 10 **Pages:** 122696-122705 **DOI:** 10.1109/ACCESS.2022.3223657 **Published:** 2022

Accession Number: WOS:000892894900001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Kopperberg, Nils		0000-0001-5422-7372
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2169-3536

Title: Disorder-Induced Localization in Crystalline Pseudo-Binary GeTe-Sb₂Te₃ Alloys between Ge₃Sb₂Te₆ and GeTe

Author(s): Jost, P (Jost, Peter); Volker, H (Volker, Hanno); Poitz, A (Poitz, Annika); Poltorak, C (Poltorak, Christian); Zalden, P (Zalden, Peter); Schafer, T (Schaefer, Tobias); Lange, FRL (Lange, Felix R. L.); Schmidt, RM (Schmidt, Ruediger M.); Hollander, B (Hollaender, Bernd); Wirtsohn, MR (Wirtsohn, Matti R.); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 25 **Issue:** 40 **Special Issue:** SI **Pages:** 6399-6406 **DOI:** 10.1002/adfm.201500848 **Published:** OCT 2015

Accession Number: WOS:000363685900011

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zalden, Peter		0000-0002-8530-0576

ISSN: 1616-301X

eISSN: 1616-3028

Title: A Complementary Resistive Switch-Based Crossbar Array Adder

Author(s): Siemon, A (Siemon, Anne); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Linn, E (Linn, Eike)

Source: IEEE JOURNAL ON EMERGING AND SELECTED TOPICS IN CIRCUITS AND SYSTEMS **Volume:** 5 **Issue:** 1 **Pages:** 64-74 **DOI:** 10.1109/JETCAS.2015.2398217 **Published:** MAR 2015

Accession Number: WOS:000351451000007

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2156-3357

Title: Stoichiometry Determination of Chalcogenide Superlattices by Means of X-Ray Diffraction and its Limits

Author(s): Hollermann, H (Hollermann, Henning); Lange, FRL (Lange, Felix R. L.); Jakobs, S (Jakobs, Stefan); Kerres, P (Kerres, Peter); Wuttig, M (Wuttig, Matthias)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 13 **Issue:** 4 **Article Number:** 1800577 **DOI:** 10.1002/pssr.201800577 **Published:** APR 2019

Accession Number: WOS:000465029000003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Moraes, Edison	C-2443-2015	
Hollermann, Henning	T-4407-2017	0000-0003-4992-7037

ISSN: 1862-6254

eISSN: 1862-6270

Title: Simulation and comparison of two sequential logic-in-memory approaches using a dynamic electrochemical metallization cell model

Author(s): Ferch, S (Ferch, S.); Linn, E (Linn, E.); Waser, R (Waser, R.); Menzel, S (Menzel, S.)

Source: MICROELECTRONICS JOURNAL **Volume:** 45 **Issue:** 11 **Pages:** 1416-1428 **DOI:** 10.1016/j.mejo.2014.09.012 **Published:** NOV 2014

Accession Number: WOS:000345641800008

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 0026-2692

eISSN: 1879-2391

Title: Intrinsic RESET Speed Limit of Valence Change Memories

Author(s): von Witzleben, M (von Witzleben, Moritz); Wiefels, S (Wiefels, Stefan); Kindsmuller, A (Kindsmueller, Andreas); Stasner, P (Stasner, Pascal); Berg, F (Berg, Fenja); Cuppers, F (Cueppers, Felix); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan); Bottger, U (Boettger, Ulrich)

Source: ACS APPLIED ELECTRONIC MATERIALS **Volume:** 3 **Issue:** 12 **Pages:** 5563-5572 **DOI:** 10.1021/acsaelm.1c00981 **Early Access Date:** DEC 2021 **Published:** DEC 28 2021

Accession Number: WOS:000731597800001

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Author	Web of Science ResearcherID	ORCID Number
Wiefels, Stefan	AAAY-2025-2021	0000-0003-2820-9677
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
von Witzleben, Moritz		0000-0002-1350-7092

eISSN: 2637-6113

Title: Applicability of Well-Established Memristive Models for Simulations of Resistive Switching Devices

Author(s): Linn, E (Linn, Eike); Siemon, A (Siemon, Anne); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS **Volume:** 61 **Issue:** 8 **Pages:** 2402-2410 **DOI:** 10.1109/TCSI.2014.2332261 **Published:** AUG 2014

Accession Number: WOS:000341593000021

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

ISSN: 1549-8328

eISSN: 1558-0806

Title: Dislocation Evolution and Migration at Grain Boundaries in Thermoelectric SnTe

Author(s): Wu, D (Wu, Di); Chen, X (Chen, Xiang); Zheng, FS (Zheng, Fengshan); Du, HC (Du, Hongchu); Jin, L (Jin, Lei); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.)

Source: ACS APPLIED ENERGY MATERIALS **Volume:** 2 **Issue:** 4 **Pages:** 2392-2397 **DOI:** 10.1021/acsaem.9b00061 **Published:** APR 2019

Accession Number: WOS:000465644600007

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zheng, Fengshan	A-8942-2014	0000-0001-7354-041X
Wu, Di	L-2437-2015	0000-0002-3467-819X
Chen, Xiang	O-4832-2019	0000-0002-4802-9684
Jin, Lei	D-2404-2010	0000-0001-6924-2364
Dunin-Borkowski, Rafal	G-5597-2012	0000-0001-8082-0647
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2574-0962

Title: Impact of composition and crystallization behavior of atomic layer deposited strontium titanate films on the resistive switching of Pt/STO/TiN devices

Author(s): Aslam, N (Aslam, N.); Longo, V (Longo, V.); Rodenbuecher, C (Rodenbuecher, C.); Roozeboom, F (Roozeboom, F.); Kessels, WMM (Kessels, W. M. M.); Szot, K (Szot, K.); Waser, R (Waser, R.); Hoffmann-Eifert, S (Hoffmann-Eifert, S.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 116 **Issue:** 6 **Article Number:** 064503 **DOI:** 10.1063/1.4891831 **Published:** AUG 14 2014

Accession Number: WOS:000341179400059

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Roozeboom, Fred	GOJ-9393-2022	0000-0003-3925-7041
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Kessels, Wilhelmus	B-7251-2018	0000-0002-7630-8226
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 0021-8979

eISSN: 1089-7550

Title: Charge and orbital order at head-to-head domain walls in PbTiO₃

Author(s): Rahmanizadeh, K (Rahmanizadeh, K.); Wortmann, D (Wortmann, D.); Bihlmayer, G (Bihlmayer, G.); Blügel, S (Blügel, S.)

Source: PHYSICAL REVIEW B **Volume:** 90 **Issue:** 11 **Article Number:** 115104 **DOI:** 10.1103/PhysRevB.90.115104 **Published:** SEP 2 2014

Accession Number: WOS:000341239300004

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Blügel, Stefan	J-8323-2013	0000-0001-9987-4733
Wortmann, Daniel		0000-0002-2248-1904

ISSN: 2469-9950
eISSN: 2469-9969

Title: Sklansky tree adder realization in 1S1R resistive switching memory architecture
Author(s): Siemon, A (Siemon, Anne); Menzel, S (Menzel, Stephan); Bhattacharjee, D (Bhattacharjee, Debjyoti); Waser, R (Waser, Rainer); Chattopadhyay, A (Chattopadhyay, Anupam); Linn, E (Linn, Eike)
Source: EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS **Volume:** 228 **Issue:** 10 **Pages:** 2269-2285
DOI: 10.1140/epjst/e2019-900042-x **Published:** OCT 2019
Accession Number: WOS:000503216100028
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
BHATTACHARJEE, DEBJYOTI	W-6287-2019	
BHATTACHARJEE, DEBJYOTI		0000-0001-6561-8934

ISSN: 1951-6355
eISSN: 1951-6401

Title: Spectroscopic elucidation of ionic motion processes in tunnel oxide-based memristive devices
Author(s): Baeumer, C (Baeumer, Christoph); Heisig, T (Heisig, Thomas); Arndt, B (Arndt, Benedikt); Skaja, K (Skaja, Katharina); Borgatti, F (Borgatti, Francesco); Offi, F (Offi, Francesco); Motti, F (Motti, Federico); Panaccione, G (Panaccione, Giancarlo); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan); Dittmann, R (Dittmann, Regina)
Source: FARADAY DISCUSSIONS **Volume:** 213 **Pages:** 215-230 **DOI:** 10.1039/c8fd00108a **Published:** FEB 1 2019
Accession Number: WOS:000459184500014
PubMed ID: 30364919
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Borgatti, Francesco	H-9777-2014	0000-0003-4659-4329
Motti, Federico	AAG-3530-2021	0000-0003-2684-0764
Baeumer, Christoph	AHA-1151-2022	
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 1359-6640
eISSN: 1364-5498

Title: Comprehensive Model of Electron Conduction in Oxide-Based Memristive Devices
Author(s): Funck, C (Funck, Carsten); Menzel, S (Menzel, Stephan)
Source: ACS APPLIED ELECTRONIC MATERIALS **Volume:** 3 **Issue:** 9 **Pages:** 3674-3692 **DOI:** 10.1021/acsaelm.1c00398 **Early Access Date:** SEP 2021 **Published:** SEP 28 2021
Accession Number: WOS:000703541500001
Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673

eISSN: 2637-6113

Title: SrTiO₃ termination control: a method to tailor the oxygen exchange kinetics

Author(s): Hensling, FVE (Hensling, Felix V. E.); Baeumer, C (Baeumer, Christoph); Rose, MA (Rose, Marc-Andre); Gunkel, F (Gunkel, Felix); Dittmann, R (Dittmann, Regina)

Source: MATERIALS RESEARCH LETTERS **Volume:** 8 **Issue:** 1 **Pages:** 31-40 **DOI:** 10.1080/21663831.2019.1682705 **Published:** 2020

Accession Number: WOS:000616830000001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986
Hensling, Felix		0000-0003-3852-7214
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 2166-3831

Title: Resistive Switching in Aqueous Nanopores by Shock Electrodeposition

Author(s): Han, JH (Han, Ji-Hyung); Muralidhar, R (Muralidhar, Ramachandran); Waser, R (Waser, Rainer); Bazant, MZ (Bazant, Martin Z.)

Source: ELECTROCHIMICA ACTA **Volume:** 222 **Pages:** 370-375 **DOI:** 10.1016/j.electacta.2016.10.188 **Published:** DEC 20 2016

Accession Number: WOS:000392566200042

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Bazant, Martin Z.	AFW-1160-2022	0000-0002-8200-4501
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0013-4686

eISSN: 1873-3859

Title: An Ag/HfO₂/Pt Threshold Switching Device with an Ultra-Low Leakage (< 10 fA), High On/Off Ratio (> 10¹¹), and Low Threshold Voltage (< 0.2 V) for Energy-Efficient Neuromorphic Computing

Author(s): Chekol, SA (Chekol, Solomon Amsalu); Cuppers, F (Cueppers, Felix); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne)

Book Group Author(s): IEEE

Source: 2021 IEEE INTERNATIONAL MEMORY WORKSHOP (IMW) **Book Series:** IEEE International Memory Workshop **Pages:** 115-118 **DOI:** 10.1109/IMW51353.2021.9439601 **Published:** 2021

Accession Number: WOS:000681328500030

Conference Title: IEEE International Memory Workshop (IMW)

Conference Date: MAY 16-19, 2021

Conference Location: ELECTR NETWORK

Conference Sponsors: IEEE, Appl Mat, Western Digital, Kioxia, Screen, Ferroelectr Memory Co, Intel, Inter Mol, Macronix Int Co Ltd, Sony, ST, TEL, Unisantis Elect

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Chekol, Solomon Amsalu	GPS-7217-2022	

ISSN: 2330-7978

ISBN: 978-1-7281-8517-0

Title: Homogeneity and variation of donor doping in Verneuil-grown SrTiO₃:Nb single crystals

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Luysberg, M (Luysberg, M.); Schwedt, A (Schwedt, A.); Havel, V (Havel, V.); Gunkel, F (Gunkel, F.); Mayer, J (Mayer, J.); Waser, R (Waser, R.)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 32250 **DOI:** 10.1038/srep32250 **Published:** AUG 31 2016

Accession Number: WOS:000382237700002

PubMed ID: 27577508

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Author	Web of Science ResearcherID	ORCID Number
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Luysberg, Martina	B-6448-2014	0000-0002-5613-7570
Schwedt, Alexander	AAM-8961-2020	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986

ISSN: 2045-2322

Title: Study of the SET switching event of VCM-based memories on a picosecond timescale

Author(s): von Witzleben, M (von Witzleben, M.); Hennen, T (Hennen, T.); Kindsmuller, A (Kindsmueller, A.); Menzel, S (Menzel, S.); Waser, R (Waser, R.); Bottger, U (Boettger, U.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 127 **Issue:** 20 **DOI:** 10.1063/5.0003840 **Published:** MAY 29 2020

Accession Number: WOS:000537104800001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Hennen, Tyler		0000-0002-5962-418X
von Witzleben, Moritz		0000-0002-1350-7092

ISSN: 0021-8979

eISSN: 1089-7550

Title: Determining the Electrical Charging Speed Limit of ReRAM Devices

Author(s): von Witzleben, M (von Witzleben, M.); Walfort, S (Walfort, S.); Waser, R (Waser, R.); Menzel, S (Menzel, S.); Bottger, U (Boettger, U.)

Source: IEEE JOURNAL OF THE ELECTRON DEVICES SOCIETY **Volume:** 9 **Pages:** 667-678 **DOI:** 10.1109/JEDS.2021.3095389 **Published:** 2021

Accession Number: WOS:000673622400001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
von Witzleben, Moritz		0000-0002-1350-7092
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 2168-6734

Title: On the density of states of germanium telluride

Author(s): Longeaud, C (Longeaud, C.); Luckas, J (Luckas, J.); Krebs, D (Krebs, D.); Carius, R (Carius, R.); Klomfass, J (Klomfass, J.); Wuttig, M (Wuttig, M.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 112 **Issue:** 11 **Article Number:** 113714 **DOI:** 10.1063/1.4768725 **Published:** DEC 1 2012

Accession Number: WOS:000312490700055

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025

ISSN: 0021-8979

eISSN: 1089-7550

Title: Trade-off between variability and retention of memristive epitaxial SrTiO₃ devices

Author(s): Rieck, JL (Rieck, Jan L.); Hensling, FVE (Hensling, Felix V. E.); Dittmann, R (Dittmann, Regina)

Source: APL MATERIALS **Volume:** 9 **Issue:** 2 **Article Number:** 021110 **DOI:**

10.1063/5.0035707 **Published:** FEB 1 2021

Accession Number: WOS:000630052100003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Hensling, Felix		0000-0003-3852-7214
Rieck, Jan		0000-0001-9725-4784

ISSN: 2166-532X

Title: Simulation of TaO_x-based Complementary Resistive Switches by a Physics-based Memristive Model

Author(s): Siemon, A (Siemon, A.); Menzel, S (Menzel, S.); Marchewka, A (Marchewka, A.); Nishi, Y (Nishi, Y.); Waser, R (Waser, R.); Linn, E (Linn, E.)

Book Group Author(s): IEEE

Source: 2014 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS (ISCAS) **Book Series:** IEEE International Symposium on Circuits and Systems **Pages:** 1420-1423 **Published:** 2014

Accession Number: WOS:000346488600359

Conference Title: IEEE International Symposium on Circuits and Systems (ISCAS)

Conference Date: JUN 01-05, 2014

Conference Location: Melbourne, AUSTRALIA

Conference Sponsors: IEEE

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0271-4302

ISBN: 978-1-4799-3432-4

Title: Valence change detection in memristive oxide based heterostructure cells by hard X-ray photoelectron emission spectroscopy

Author(s): Kindsmuller, A (Kindsmueller, A.); Schmitz, C (Schmitz, C.); Wiemann, C (Wiemann, C.); Skaja, K (Skaja, K.); Wouters, DJ (Wouters, D. J.); Waser, R (Waser, R.); Schneider, CM (Schneider, C. M.); Dittmann, R

(Dittmann, R.)

Source: APL MATERIALS **Volume:** 6 **Issue:** 4 **Article Number:** 046106 **DOI:**

10.1063/1.5026063 **Published:** APR 2018

Accession Number: WOS:000431141500006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Wouters, Dirk		0000-0002-6766-8553

ISSN: 2166-532X

Title: Imaging of phase change materials below a capping layer using correlative infrared near-field microscopy and electron microscopy

Author(s): Lewin, M (Lewin, M.); Hauer, B (Hauer, B.); Bornhofft, M (Bornhoefft, M.); Jung, L (Jung, L.); Benke, J (Benke, J.); Michel, AKU (Michel, A. -K. U.); Mayer, J (Mayer, J.); Wuttig, M (Wuttig, M.); Taubner, T (Taubner, T.)

Source: APPLIED PHYSICS LETTERS **Volume:** 107 **Issue:** 15 **Article Number:** 151902 **DOI:**

10.1063/1.4933102 **Published:** OCT 12 2015

Accession Number: WOS:000363424000014

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Michel, Ann-Katrin U.	AAI-6083-2020	0000-0002-6130-3991
Taubner, Thomas	E-8779-2012	0000-0002-0628-3043
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Jung, Lena		0000-0002-3377-1309
Lewin, Martin		0000-0003-4036-2252

ISSN: 0003-6951

eISSN: 1077-3118



Title: Electrochemical dynamics of nanoscale metallic inclusions in dielectrics

Author(s): Yang, YC (Yang, Yuchao); Gao, P (Gao, Peng); Li, LZ (Li, Linze); Pan, XQ (Pan, Xiaoqing); Tappertzhofen, S (Tappertzhofen, Stefan); Choi, S (Choi, ShinHyun); Waser, R (Waser, Rainer); Valov, I (Valov, Iliia); Lu, WD (Lu, Wei D.)

Source: NATURE COMMUNICATIONS **Volume:** 5 **Article Number:** 4232 **DOI:** 10.1038/ncomms5232 **Published:** JUN 2014

Accession Number: WOS:000338840000001

PubMed ID: 24953477

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Li, Linze	HCH-7814-2022	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Valov, Iliia	J-7021-2013	0000-0002-0728-7214
Gao, Peng	AAC-8550-2019	
Li, Linze	J-5187-2017	0000-0001-5362-8991
Choi, Shinhyun	X-6435-2018	
Lu, Wei	AAE-2921-2022	0000-0002-4150-8674
Lu, Wei D.	E-8388-2011	0000-0003-4731-1976
Gao, Peng	B-4675-2012	
Tappertzhofen, Stefan	AAW-9372-2020	0000-0003-3747-5627
Tappertzhofen, Stefan	N-6330-2014	
Pan, Xiaoqing	ABF-4088-2020	0000-0002-0965-8568
Yang, Yuchao		0000-0003-4674-4059
Gao, Peng		0000-0001-9868-2115

ISSN: 2041-1723

Title: Halide Perovskites: Advanced Photovoltaic Materials Empowered by a Unique Bonding Mechanism

Author(s): Wuttig, M (Wuttig, Matthias); Schon, CF (Schoen, Carl-Friedrich); Schumacher, M (Schumacher, Mathias); Robertson, J (Robertson, John); Golub, P (Golub, Pavlo); Bousquet, E (Bousquet, Eric); Gatti, C (Gatti, Carlo); Raty, JY (Raty, Jean-Yves)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 32 **Issue:** 2 **Article Number:** 2110166 **DOI:** 10.1002/adfm.202110166 **Early Access Date:** OCT 2021 **Published:** JAN 2022

Accession Number: WOS:000710103100001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Golub, Pavlo	AAS-6765-2020	0000-0003-0834-4281
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1616-301X

eISSN: 1616-3028

Title: Genesis and Effects of Swapping Bilayers in Hexagonal GeSb₂Te₄

Author(s): Wang, JJ (Wang, Jiang-Jing); Wang, J (Wang, Jun); Du, HC (Du, Hongchu); Lu, L (Lu, Lu); Schmitz, PC (Schmitz, Peter C.); Reindl, J (Reindl, Johannes); Mio, AM (Mio, Antonio M.); Jia, CL (Jia, Chun-Lin); Ma, E (Ma, Evan); Mazzarello, R (Mazzarello, Riccardo); Wuttig, M (Wuttig, Matthias); Zhang, W (Zhang, Wei)

Source: CHEMISTRY OF MATERIALS **Volume:** 30 **Issue:** 14 **Pages:** 4770-4777 **DOI:**

10.1021/acs.chemmater.8b01900 **Published:** JUL 24 2018

Accession Number: WOS:000440105500035

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	P-3546-2019	
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Mio, Antonio Massimiliano	N-4992-2019	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Wang, Jiangjing	AAD-2136-2021	0000-0001-7327-8159
Ma, En	A-3232-2010	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
xjtu, campano	Q-1904-2015	
Du, Hongchu	L-5603-2014	0000-0002-4661-4644
Mio, Antonio Massimiliano	Y-4803-2018	0000-0002-8280-5413

ISSN: 0897-4756

eISSN: 1520-5002

Title: Reducing the stochasticity of crystal nucleation to enable subnanosecond memory writing

Author(s): Rao, F (Rao, Feng); Ding, KY (Ding, Keyuan); Zhou, YX (Zhou, Yuxing); Zheng, YH (Zheng, Yonghui); Xia, MJ (Xia, Mengjiao); Lv, SL (Lv, Shilong); Song, ZT (Song, Zhitang); Feng, SL (Feng, Songlin); Ronneberger, I (Ronneberger, Ider); Mazzarello, R (Mazzarello, Riccardo); Zhang, W (Zhang, Wei); Ma, E (Ma, Evan)

Source: SCIENCE **Volume:** 358 **Issue:** 6369 **Pages:** 1423-1426 **DOI:** 10.1126/science.aao3212 **Published:** DEC 15 2017

Accession Number: WOS:000417918500039

PubMed ID: 29123020

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Ma, En	A-3232-2010	
Zhou, Yuxing	AAA-3958-2020	0000-0001-8061-3867
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	P-3546-2019	
xjtu, campano	Q-1904-2015	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Rao, Feng		0000-0002-6922-5393
feng, song lin		0000-0001-5515-2034
Ding, Keyuan		0000-0002-4234-4341
Zheng, Yonghui		0000-0002-0826-0320

ISSN: 0036-8075

eISSN: 1095-9203

Title: Disorder-induced Anderson-like localization for bidimensional thermoelectrics optimization

Author(s): Agne, MT (Agne, Matthias T.); Lange, FRL (Lange, Felix R. L.); Male, JP (Male, James P.); Siegert, KS (Siegert, K. Simon); Volker, H (Volker, Hanno); Poltorak, C (Poltorak, Christian); Poitz, A (Poitz, Annika); Siegrist, T (Siegrist, Theo); Maier, S (Maier, Stefan); Snyder, GJ (Snyder, G. Jeffrey); Wuttig, M (Wuttig, Matthias)

Source: MATTER **Volume:** 4 **Issue:** 9 **Pages:** 2970-+ **DOI:** 10.1016/j.matt.2021.07.017 **Early Access Date:** SEP 2021 **Published:** SEP 1 2021

Accession Number: WOS:000692121100006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Snyder, G. Jeffrey	E-4453-2011	0000-0003-1414-8682
Agne, Matthias		0000-0001-8270-5730

ISSN: 2590-2393

eISSN: 2590-2385

Title: Correlation between the transport mechanisms in conductive filaments inside Ta₂O₅-based resistive switching devices and in substoichiometric TaO_x thin films

Author(s): Rosario, CMM (Rosario, Carlos M. M.); Thoner, B (Thoener, Bo); Schonhals, A (Schoenhals, Alexander); Menzel, S (Menzel, Stephan); Wuttig, M (Wuttig, Matthias); Waser, R (Waser, Rainer); Sobolev, NA (Sobolev, Nikolai A.); Wouters, DJ (Wouters, Dirk J.)

Source: APPLIED PHYSICS LETTERS **Volume:** 112 **Issue:** 21 **Article Number:** 213504 **DOI:** 10.1063/1.5024504 **Published:** MAY 21 2018

Accession Number: WOS:000433140900034

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Sobolev, Nikolai A.	B-2325-2008	0000-0002-9420-8130
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Rosário, Carlos M. M.	GRJ-9081-2022	
Rosario, Carlos		0000-0002-3285-2027
Wouters, Dirk		0000-0002-6766-8553
Schonhals, Alexander		0000-0003-0118-6321

ISSN: 0003-6951

eISSN: 1077-3118

Title: Femtosecond x-ray diffraction reveals a liquid-liquid phase transition in phase-change materials

Author(s): Zalden, P (Zalden, Peter); Quirin, F (Quirin, Florian); Schumacher, M (Schumacher, Mathias); Siegel, J (Siegel, Jan); Wei, S (Wei, Shuai); Koc, A (Koc, Azize); Nicoul, M (Nicoul, Matthieu); Trigo, M (Trigo, Mariano); Andreasson, P (Andreasson, Pererik); Enquist, H (Enquist, Henrik); Shu, MJ (Shu, Michael J.); Pardini, T (Pardini, Tommaso); Chollet, M (Chollet, Matthieu); Zhu, DL (Zhu, Diling); Lemke, H (Lemke, Henrik); Ronneberger, I (Ronneberger, Ider); Larsson, J (Larsson, Jorgen); Lindenberg, AM (Lindenberg, Aaron M.); Fischer, HE (Fischer, Henry E.); Hau-Riege, S (Hau-Riege, Stefan); Reis, DA (Reis, David A.); Mazzarello, R (Mazzarello, Riccardo); Wuttig, M (Wuttig, Matthias); Sokolowski-Tinten, K (Sokolowski-Tinten, Klaus)

Source: SCIENCE **Volume:** 364 **Issue:** 6445 **Special Issue:** SI **Pages:** 1062-+ **DOI:** 10.1126/science.aaw1773 **Published:** JUN 14 2019

Accession Number: WOS:000471306700040

PubMed ID: 31197008

Author Identifiers:

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Author	Web of Science ResearcherID	ORCID Number
Fischer, Henry E	D-5299-2012	0000-0002-1204-0750
Wei, Shuai	I-7469-2018	0000-0003-3051-2480
Lemke, Henrik Till T	N-7419-2016	0000-0003-1577-8643
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Larsson, JÄrgen	HSI-3947-2023	
Enquist, Henrik		0000-0002-4307-2851
Zalden, Peter		0000-0002-8530-0576
Andreasson, Pererik		0000-0002-3764-4235
Siegel, Jan	C-7031-2009	0000-0002-6159-7299

ISSN: 0036-8075

eISSN: 1095-9203

Title: Terahertz Nanoimaging and Nanospectroscopy of Chalcogenide Phase-Change Materials

Author(s): Chen, C (Chen, Chao); Chen, S (Chen, Shu); Lobo, RPSM (Lobo, Ricardo P. S. M.); Maciel-Escudero, C (Maciel-Escudero, Carlos); Lewin, M (Lewin, Martin); Taubner, T (Taubner, Thomas); Xiong, W (Xiong, Wei); Xu, M (Xu, Ming); Zhang, XL (Zhang, Xinliang); Miao, XS (Miao, Xiangshui); Li, PN (Li, Peining); Hillenbrand, R (Hillenbrand, Rainer)

Source: ACS PHOTONICS **Volume:** 7 **Issue:** 12 **Pages:** 5499-5506 **DOI:** 10.1021/acsp Photonics.0c01541 **Published:** DEC 16 2020

Accession Number: WOS:000600205700029

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Xu, Ming	ABH-4095-2020	0000-0002-2730-283X
Zhang, Xinliang	A-2447-2012	0000-0001-8513-3328
Xu, Ming	E-2188-2015	0000-0002-2730-283X
Hillenbrand, Rainer	N-3428-2016	0000-0002-1904-4551
Taubner, Thomas	E-8779-2012	0000-0002-0628-3043
Chen, Chao		0000-0001-5851-1370
Lewin, Martin		0000-0003-4036-2252

ISSN: 2330-4022

Title: Experimental Observation of ABCB Stacked Tetralayer Graphene

Author(s): Wirth, KG (Wirth, Konstantin G.); Hauck, JB (Hauck, Jonas B.); Rothstein, A (Rothstein, Alexander); Kyoseva, H (Kyoseva, Hristiyana); Siebenkotten, D (Siebenkotten, Dario); Conrads, L (Conrads, Lukas); Klebl, L (Klebl, Lennart); Fischer, A (Fischer, Ammon); Beschoten, B (Beschoten, Bernd); Stampfer, C (Stampfer, Christoph); Kennes, DM (Kennes, Dante M.); Waldecker, L (Waldecker, Lutz); Taubner, T (Taubner, Thomas)

Source: ACS NANO **DOI:** 10.1021/acsnano.2c06053 **Early Access Date:** OCT 2022

Accession Number: WOS:000866528400001

PubMed ID: 36205460

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wirth, Konstantin G.	HGE-8442-2022	0000-0003-2313-6114
Conrads, Lukas	HRB-6790-2023	0000-0002-2840-1354
Klebl, Lennart		0000-0002-5453-9779
Waldecker, Lutz	A-6625-2015	0000-0002-0898-3860
Siebenkotten, Dario		0000-0002-5118-7368
Beschoten, Bernd	K-5470-2013	0000-0003-2359-2718

Stampfer, Christoph	K-3147-2013	0000-0002-4958-7362
Rothstein, Alexander		0000-0001-5859-4997
Fischer, Ammon		0000-0002-8786-1465

ISSN: 1936-0851

eISSN: 1936-086X

Title: A Quantum-Mechanical Map for Bonding and Properties in Solids

Author(s): Raty, JY (Raty, Jean-Yves); Schumacher, M (Schumacher, Mathias); Golub, P (Golub, Pavlo); Deringer, VL (Deringer, Volker L.); Gatti, C (Gatti, Carlo); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **Volume:** 31 **Issue:** 3 **Article Number:** 1806280 **DOI:** 10.1002/adma.201806280 **Published:** JAN 18 2019

Accession Number: WOS:000459628200023

PubMed ID: 30474156

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Golub, Pavlo	AAS-6765-2020	0000-0003-0834-4281
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Gatti, Carlo	AAA-8211-2020	
, Carlo	B-7410-2009	0000-0002-0047-1596
Deringer, Volker		0000-0001-6873-0278

ISSN: 0935-9648

eISSN: 1521-4095

Title: Metallic filamentary conduction in valence change-based resistive switching devices: the case of TaOx thin film with x similar to 1

Author(s): Rosario, CMM (Rosario, Carlos M. M.); Thoner, B (Thoener, Bo); Schonhals, A (Schoenhals, Alexander); Menzel, S (Menzel, Stephan); Meledin, A (Meledin, Alexander); Barradas, NP (Barradas, Nuno P.); Alves, E (Alves, Eduardo); Mayer, J (Mayer, Joachim); Wuttig, M (Wuttig, Matthias); Waser, R (Waser, Rainer); Sobolev, NA (Sobolev, Nikolai A.); Wouters, DJ (Wouters, Dirk J.)

Source: NANOSCALE **Volume:** 11 **Issue:** 36 **Pages:** 16978-16990 **DOI:** 10.1039/c9nr05285b **Published:** SEP 28 2019

Accession Number: WOS:000496763600029

PubMed ID: 31498350

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Rosário, Carlos M. M.	GRJ-9081-2022	
Barradas, Nuno P.	B-8295-2012	0000-0001-7795-8573
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Alves, E.	P-5031-2019	0000-0003-0633-8937
Meledin, Alexander	C-7524-2016	0000-0002-3200-0553
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Wuttig, Matthias		0000-0003-1498-1025
Sobolev, Nikolai	B-2325-2008	0000-0002-9420-8130
Rosario, Carlos		0000-0002-3285-2027

ISSN: 2040-3364

eISSN: 2040-3372

Title: Disorder Control in Crystalline GeSb₂Te₄ Using High Pressure

Author(s): Xu, M (Xu, Ming); Zhang, W (Zhang, Wei); Mazzarello, R (Mazzarello, Riccardo); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED SCIENCE **Volume:** 2 **Issue:** 8 **Article Number:** 1500117 **DOI:** 10.1002/advs.201500117 **Published:** AUG 2015

Accession Number: WOS:000368997300010

PubMed ID: 27708999

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Xu, Meng	HJY-7139-2023	
Xu, Ming	E-2188-2015	0000-0002-2730-283X
Xu, Ming	ABH-4095-2020	0000-0002-2730-283X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X

eISSN: 2198-3844

Title: Mg Deficiency in Grain Boundaries of n-Type Mg₃Sb₂ Identified by Atom Probe Tomography

Author(s): Kuo, JJ (Kuo, Jimmy Jiahong); Yu, Y (Yu, Yuan); Kang, SD (Kang, Stephen Dongmin); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Wuttig, M (Wuttig, Matthias); Snyder, GJ (Snyder, G. Jeffrey)

Source: ADVANCED MATERIALS INTERFACES **Volume:** 6 **Issue:** 13 **Article Number:** 1900429 **DOI:** 10.1002/admi.201900429 **Published:** JUL 2019

Accession Number: WOS:000478635700011

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Snyder, G. Jeffrey	E-4453-2011	0000-0003-1414-8682
Cojocaru-Miredin, Oana	M-9985-2016	0000-0001-6543-203X
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Kang, Stephen Dongmin	AAX-7928-2020	0000-0002-7491-7933

ISSN: 2196-7350

Title: Reversing the Resistivity Contrast in the Phase-Change Memory Material GeSb₂Te₄ Using High Pressure

Author(s): Xu, M (Xu, Ming); Yu, ZH (Yu, Zhenhai); Wang, L (Wang, Lin); Mazzarello, R (Mazzarello, Riccardo); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 1 **Issue:** 12 **Article Number:** 1500240 **DOI:** 10.1002/aelm.201500240 **Published:** DEC 2015

Accession Number: WOS:000368916500011

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Xu, Ming	E-2188-2015	0000-0002-2730-283X
Xu, Meng	HJY-7139-2023	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Yu, Zhenhai	AAA-5886-2021	0000-0001-6723-116X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Wang, Lin	N-4161-2017	

Title: Candidate exome capture identifies mutation of SDCCAG8 as the cause of a retinal-renal ciliopathy

Author(s): Otto, EA (Otto, Edgar A.); Hurd, TW (Hurd, Toby W.); Airik, R (Airik, Rannar); Chaki, M (Chaki, Moumita); Zhou, W (Zhou, Weibin); Stoetzel, C (Stoetzel, Corinne); Patil, SB (Patil, Suresh B.); Levy, S (Levy, Shawn); Ghosh, AK (Ghosh, Amiya K.); Murga-Zamalloa, CA (Murga-Zamalloa, Carlos A.); van Reeuwijk, J (van Reeuwijk, Jeroen); Letteboer, SJF (Letteboer, Stef J. F.); Sang, L (Sang, Liyun); Giles, RH (Giles, Rachel H.); Liu, Q (Liu, Qin); Coene, KLM (Coene, Karlien L. M.); Estrada-Cuzcano, A (Estrada-Cuzcano, Alejandro); Collin, RWJ (Collin, Rob W. J.); McLaughlin, HM (McLaughlin, Heather M.); Held, S (Held, Susanne); Kasanuki, JM (Kasanuki, Jennifer M.); Ramaswami, G (Ramaswami, Gokul); Conte, J (Conte, Jinny); Lopez, I (Lopez, Irma); Washburn, J (Washburn, Joseph); MacDonald, J (MacDonald, James); Hu, JH (Hu, Jinghua); Yamashita, Y (Yamashita, Yukiko); Maher, ER (Maher, Eamonn R.); Guay-Woodford, LM (Guay-Woodford, Lisa M.); Neumann, HPH (Neumann, Hartmut P. H.); Obermuller, N (Obermueller, Nicholas); Koenekoop, RK (Koenekoop, Robert K.); Bergmann, C (Bergmann, Carsten); Bei, XS (Bei, Xiaoshu); Lewis, RA (Lewis, Richard A.); Katsanis, N (Katsanis, Nicholas); Lopes, V (Lopes, Vanda); Williams, DS (Williams, David S.); Lyons, RH (Lyons, Robert H.); Dang, CV (Dang, Chi V.); Brito, DA (Brito, Daniela A.); Dias, MB (Dias, Monica Bettencourt); Zhang, X (Zhang, Xinmin); Cavalcoli, JD (Cavalcoli, James D.); Nurnberg, G (Nuernberg, Gudrun); Nurnberg, P (Nuernberg, Peter); Pierce, EA (Pierce, Eric A.); Jackson, PK (Jackson, Peter K.); Antignac, C (Antignac, Corinne); Saunier, S (Saunier, Sophie); Roepman, R (Roepman, Ronald); Dollfus, H (Dollfus, Helene); Khanna, H (Khanna, Hemant); Hildebrandt, F (Hildebrandt, Friedhelm)

Source: NATURE GENETICS **Volume:** 42 **Issue:** 10 **Pages:** 840+ **DOI:** 10.1038/ng.662 **Published:** OCT 2010

Accession Number: WOS:000282276600013

PubMed ID: 20835237

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ANTIGNAC, Corinne	H-8945-2017	0000-0002-9934-4940
Koenekoop, Robert	AAT-6676-2021	
Letteboer, Stef JF	P-8272-2015	
wang, meng	GWZ-9558-2022	
Estrada-Cuzcano, Alejandro	J-4365-2019	0000-0001-9868-2465
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Dang, Chi		0000-0002-4031-2522
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ISSN: 1061-4036

eISSN: 1546-1718



Title: Influence of Dislocations in Transition Metal Oxides on Selected Physical and Chemical Properties
Author(s): Szot, K (Szot, Kristof); Rodenbuecher, C (Rodenbuecher, Christian); Bihlmayer, G (Bihlmayer, Gustav); Speier, W (Speier, Wolfgang); Ishikawa, R (Ishikawa, Ryo); Shibata, N (Shibata, Naoya); Ikuhara, Y (Ikuhara, Yuichi)

Source: CRYSTALS **Volume:** 8 **Issue:** 6 **Article Number:** 241 **DOI:** 10.3390/cryst8060241 **Published:** JUN 2018

Accession Number: WOS:000436129400010

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Ishikawa, Ryo	M-4206-2014	0000-0001-5801-0971
Ikuhara, Yuichi	F-3066-2010	
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Speier, Wolfgang		0000-0002-3900-6931

ISSN: 2073-4352

Title: Atomic Layer Deposition of TiO_x/Al₂O₃ Bilayer Structures for Resistive Switching Memory Applications
Author(s): Zhang, HH (Zhang, Hehe); Aslam, N (Aslam, Nabeel); Reiners, M (Reiners, Marcel); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne)

Source: CHEMICAL VAPOR DEPOSITION **Volume:** 20 **Issue:** 7-9 **Special Issue:** SI **Pages:** 282-290 **DOI:** 10.1002/cvde.201407123 **Published:** SEP 2014

Accession Number: WOS:000342069800012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Zhang, Hehe	ABE-9886-2021	0000-0002-9346-6808
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0948-1907

eISSN: 1521-3862

Title: Volatile resistance states in electrochemical metallization cells enabling non-destructive readout of complementary resistive switches

Author(s): van den Hurk, J (van den Hurk, Jan); Linn, E (Linn, Eike); Zhang, HH (Zhang, Hehe); Waser, R (Waser, Rainer); Valov, I (Valov, Ilia)

Source: NANOTECHNOLOGY **Volume:** 25 **Issue:** 42 **Article Number:** 425202 **DOI:** 10.1088/0957-4484/25/42/425202 **Published:** OCT 24 2014

Accession Number: WOS:000342580700005

PubMed ID: 25266966

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Author	Web of Science ResearcherID	ORCID Number
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Zhang, Hehe	ABE-9886-2021	0000-0002-9346-6808
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0957-4484

eISSN: 1361-6528

Title: Nanosized Conducting Filaments Formed by Atomic-Scale Defects in Redox-Based Resistive Switching Memories

Author(s): Du, HC (Du, Hongchu); Jia, CL (Jia, Chun-Lin); Koehl, A (Koehl, Annemarie); Barthel, J (Barthel, Jun); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Mayer, J (Mayer, Joachim)

Source: CHEMISTRY OF MATERIALS **Volume:** 29 **Issue:** 7 **Pages:** 3164-3173 **DOI:** 10.1021/acs.chemmater.7b00220 **Published:** APR 11 2017

Accession Number: WOS:000399264100063

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 0897-4756

eISSN: 1520-5002

Title: Determination of the electrostatic potential distribution in Pt/Fe:SrTiO₃/Nb:SrTiO₃ thin-film structures by electron holography

Author(s): Marchewka, A (Marchewka, Astrid); Cooper, D (Cooper, David); Lenser, C (Lenser, Christian); Menzel, S (Menzel, Stephan); Du, HC (Du, Hongchu); Dittmann, R (Dittmann, Regina); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.); Waser, R (Waser, Rainer)

Source: SCIENTIFIC REPORTS **Volume:** 4 **Article Number:** 6975 **DOI:** 10.1038/srep06975 **Published:** NOV 10 2014

Accession Number: WOS:000344759200002

PubMed ID: 25381733

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Cooper, David	E-5659-2011	
Marchewka, Astrid		0000-0002-1576-1684
Lenser, Christian		0000-0001-5636-2201

ISSN: 2045-2322

Title: Band alignment at memristive metal-oxide interfaces investigated by hard x-ray photoemission spectroscopy

Author(s): Lenser, C (Lenser, C.); Kohl, A (Koehl, A.); Patt, M (Patt, M.); Schneider, CM (Schneider, C. M.); Waser, R (Waser, R.); Dittmann, R (Dittmann, R.)

Source: PHYSICAL REVIEW B **Volume:** 90 **Issue:** 11 **Article Number:** 115312 **DOI:**

10.1103/PhysRevB.90.115312 **Published:** SEP 26 2014

Accession Number: WOS:000342662600006

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Patt, Marten	I-5206-2015	
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Lenser, Christian		0000-0001-5636-2201

ISSN: 2469-9950

eISSN: 2469-9969

Title: Current channeling along extended defects during electroreduction of SrTiO₃

Author(s): Rodenbuecher, C (Rodenbuecher, Christian); Menzel, S (Menzel, Stephan); Wrana, D (Wrana, Dominik); Gensch, T (Gensch, Thomas); Korte, C (Korte, Carsten); Krok, F (Krok, Franciszek); Szot, K (Szot, Krzysztof)

Source: SCIENTIFIC REPORTS **Volume:** 9 **Article Number:** 2502 **DOI:** 10.1038/s41598-019-39372-

2 **Published:** FEB 21 2019

Accession Number: WOS:000459281500071

PubMed ID: 30792458

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Gensch, Thomas		0000-0002-3903-4705
Krok, Franciszek		0000-0002-6931-3545
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 2045-2322

Title: A Consistent Model for Short-Term Instability and Long-Term Retention in Filamentary Oxide-Based Memristive Devices

Author(s): Kopperberg, N (Kopperberg, Nils); Wiefels, S (Wiefels, Stefan); Liberda, S (Liberda, Sergej); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: ACS APPLIED MATERIALS & INTERFACES **Volume:** 13 **Issue:** 48 **Pages:** 58066-58075 **DOI:**

10.1021/acsami.1c14667 **Published:** DEC 8 2021

Accession Number: WOS:000752970600126

PubMed ID: 34808060

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ISSN: 1944-8244

eISSN: 1944-8252

Title: Unexpected Ge-Ge Contacts in the Two-Dimensional Ge₄Se₃Te Phase and Analysis of Their Chemical Cause with the Density of Energy (DOE) Function

Author(s): Kupers, M (Kuepers, Michael); Konze, PM (Konze, Philipp M.); Maintz, S (Maintz, Stefan); Steinberg, S (Steinberg, Simon); Mio, AM (Mio, Antonio M.); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Zhu, M (Zhu, Min); Muller, M (Mueller, Merlin); Luysberg, M (Luysberg, Martina); Mayer, J (Mayer, Joachim); Wuttig, M (Wuttig, Matthias); Dronskowski, R (Dronskowski, Richard)

Source: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION **Volume:** 56 **Issue:** 34 **Pages:** 10204-10208

DOI: 10.1002/anie.201612121 **Published:** AUG 14 2017

Accession Number: WOS:000407173600031

PubMed ID: 28194844

Author Identifiers:

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Luysberg, Martina	B-6448-2014	0000-0002-5613-7570
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Zhu, Min	L-8985-2019	0000-0001-8057-9742
Zhu, Min	AAN-4800-2020	0000-0001-8057-9742
Cojocaru-Miredin, Oana	M-9985-2016	0000-0001-6543-203X
Mio, Antonio Massimiliano	Y-4803-2018	0000-0002-8280-5413
Konze, Philipp		0000-0002-7946-702X

ISSN: 1433-7851

eISSN: 1521-3773

Title: Design of defect-chemical properties and device performance in memristive systems

Author(s): Lubben, M (Luebben, M.); Cuppers, F (Cueppers, F.); Mohr, J (Mohr, J.); von Witzleben, M (von Witzleben, M.); Breuer, U (Breuer, U.); Waser, R (Waser, R.); Neumann, C (Neumann, C.); Valov, I (Valov, I)

Source: SCIENCE ADVANCES **Volume:** 6 **Issue:** 19 **Article Number:** eaaz9079 **DOI:**

10.1126/sciadv.aaz9079 **Published:** MAY 2020

Accession Number: WOS:000531171100032

PubMed ID: 32548248

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Lubben, Michael		0000-0003-0218-0183
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ISSN: 2375-2548

Title: Effect of the Threshold Kinetics on the Filament Relaxation Behavior of Ag-Based Diffusive Memristors

Author(s): Chekol, SA (Chekol, Solomon Amsalu); Menzel, S (Menzel, Stephan); Ahmad, RW (Ahmad, Rana Walied); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 32 **Issue:** 15 **Article Number:** 2111242 **DOI:** 10.1002/adfm.202111242 **Early Access Date:** DEC 2021 **Published:** APR 2022

Accession Number: WOS:000733321000001

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 1616-301X

eISSN: 1616-3028

Title: Controlled Crystal Growth of Indium Selenide, In₂Se₃, and the Crystal Structures of alpha-In₂Se₃

Author(s): Kupers, M (Kuepers, Michael); Konze, PM (Konze, Philipp M.); Meledin, A (Meledin, Alexander); Mayer, J (Mayer, Joachim); Englert, U (Englert, Ulli); Wuttig, M (Wuttig, Matthias); Dronskowski, R (Dronskowski, Richard)

Source: INORGANIC CHEMISTRY **Volume:** 57 **Issue:** 18 **Pages:** 11775-11781 **DOI:**

10.1021/acs.inorgchem.8b01950 **Published:** SEP 17 2018

Accession Number: WOS:000445165400054

PubMed ID: 30153016

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Meledin, Alexander	C-7524-2016	0000-0002-3200-0553
Konze, Philipp		0000-0002-7946-702X

ISSN: 0020-1669

eISSN: 1520-510X

Title: Revealing nano-chemistry at lattice defects in thermoelectric materials using atom probe tomography

Author(s): Yu, Y (Yu, Yuan); Zhou, CJ (Zhou, Chongjian); Zhang, SY (Zhang, Siyuan); Zhu, M (Zhu, Min); Wuttig, M (Wuttig, Matthias); Scheu, C (Scheu, Christina); Raabe, D (Raabe, Dierk); Snyder, GJ (Snyder, Gerald Jeffrey); Gault, B (Gault, Baptiste); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana)

Source: MATERIALS TODAY **Volume:** 32 **Pages:** 260-274 **DOI:** 10.1016/j.mattod.2019.11.010 **Published:** JAN-FEB 2020

Accession Number: WOS:000514670500036

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Gault, Baptiste		0000-0002-4934-0458
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ISSN: 1369-7021

eISSN: 1873-4103

Title: Fast crystallization below the glass transition temperature in hyperquenched systems

Author(s): Lucas, P (Lucas, Pierre); Takeda, W (Takeda, Wataru); Pries, J (Pries, Julian); Benke-Jacob, J (Benke-Jacob, Julia); Wuttig, M (Wuttig, Matthias)

Source: JOURNAL OF CHEMICAL PHYSICS **Volume:** 158 **Issue:** 5 **Article Number:** 054502 **DOI:** 10.1063/5.0136306 **Published:** FEB 7 2023

Accession Number: WOS:000925327200006

PubMed ID: 36754790

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Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 0021-9606

eISSN: 1089-7690

Title: Chemical Reactions and Phase Stabilities in the Si-Te System at High Pressures and High Temperatures

Author(s): Grzechnik, A (Grzechnik, Andrzej); Crichton, WA (Crichton, Wilson A.); Druzhbin, D (Druzhbin, Dmitrii); Fecik, M (Fecik, Michal); Stoffel, RP (Stoffel, Ralf P.); Brauksiepe, S (Brauksiepe, Sophia); Steinberg, S (Steinberg, Simon); Dronskowski, R (Dronskowski, Richard); Hakala, BV (Hakala, B. Viliam); Friese, K (Friese, Karen)

Source: INORGANIC CHEMISTRY **Volume:** 61 **Issue:** 19 **Pages:** 7349-7357 **DOI:** 10.1021/acs.inorgchem.2c00304 **Published:** MAY 16 2022

Accession Number: WOS:000804099400018

PubMed ID: 35512222

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ISSN: 0020-1669

eISSN: 1520-510X

Title: Impedance spectroscopy study of the unipolar and bipolar resistive switching states of atomic layer deposited polycrystalline ZrO₂ thin films

Author(s): Karkkanen, I (Kaerkaenen, Irina); Shkabko, A (Shkabko, Andrey); Heikkila, M (Heikkila, Mikko); Vehkamaki, M (Vehkamaki, Marko); Niinisto, J (Niinisto, Jaakko); Aslam, N (Aslam, Nabeel); Meuffels, P (Meuffels, Paul); Ritala, M (Ritala, Mikko); Leskela, M (Leskela, Markku); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne)

Source: PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE **Volume:** 212 **Issue:** 4 **Pages:** 751-766 **DOI:** 10.1002/pssa.201431489 **Published:** APR 2015

Accession Number: WOS:000352820100008

Author Identifiers:

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Heikkilä, Mikko	AAG-1141-2021	0000-0002-6027-2089
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Vehkamäki, Marko		0000-0002-7885-0959

ISSN: 1862-6300

eISSN: 1862-6319

Title: Uniting Gradual and Abrupt SET Processes in Resistive Switching Oxides

Author(s): Fleck, K (Fleck, Karsten); La Torre, C (La Torre, Camilla); Aslam, N (Aslam, Nabeel); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Bottger, U (Boettger, Ulrich); Menzel, S (Menzel, Stephan)

Source: PHYSICAL REVIEW APPLIED **Volume:** 6 **Issue:** 6 **Article Number:** 64015 **DOI:**

10.1103/PhysRevApplied.6.064015 **Published:** DEC 27 2016

Accession Number: WOS:000391036500003

Author Identifiers:

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ISSN: 2331-7019

Title: 50x Endurance Improvement in TaOx RRAM by Extrinsic Doping

Author(s): Kempen, T (Kempen, Tim); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas)

Book Group Author(s): IEEE

Source: 2021 IEEE INTERNATIONAL MEMORY WORKSHOP (IMW) **Book Series:** IEEE International Memory Workshop **Pages:** 9-12 **DOI:** 10.1109/IMW51353.2021.9439591 **Published:** 2021

Accession Number: WOS:000681328500003

Conference Title: IEEE International Memory Workshop (IMW)

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ISSN: 2330-7978

ISBN: 978-1-7281-8517-0

Title: Local surface conductivity of transition metal oxides mapped with true atomic resolution

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Bihlmayer, G (Bihlmayer, G.); Speier, W (Speier, W.); Kubacki, J (Kubacki, J.); Wojtyniak, M (Wojtyniak, M.); Rogala, M (Rogala, M.); Wrana, D (Wrana, D.); Krok, F (Krok, F.); Szot, K (Szot, K.)

Source: NANOSCALE **Volume:** 10 **Issue:** 24 **Pages:** 11498-11505 **DOI:** 10.1039/c8nr02562b **Published:** JUN 28 2018

Accession Number: WOS:000436133400031

PubMed ID: 29888770

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Wojtyniak, Marcin	GYU-7140-2022	0000-0001-9197-6890
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Rogala, Maciej		0000-0002-7898-5087
Krok, Franciszek		0000-0002-6931-3545

ISSN: 2040-3364

eISSN: 2040-3372

Title: Different threshold and bipolar resistive switching mechanisms in reactively sputtered amorphous undoped and Cr-doped vanadium oxide thin films

Author(s): Rupp, JAJ (Rupp, Jonathan A. J.); Querre, M (Querre, Madec); Kindsmuller, A (Kindsmueller, Andreas); Besland, MP (Besland, Marie-Paule); Janod, E (Janod, Etienne); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Wouters, DJ (Wouters, Dirk J.)

Source: JOURNAL OF APPLIED PHYSICS **Volume:** 123 **Issue:** 4 **Article Number:** 044502 **DOI:** 10.1063/1.5006145 **Published:** JAN 28 2018

Accession Number: WOS:000423875800035

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Janod, Etienne	ABB-5959-2021	0000-0002-2430-9542
BESLAND, Marie-Paule	A-9670-2012	
Wouters, Dirk		0000-0002-6766-8553
BESLAND, Marie-Paule		0000-0002-2680-2402

ISSN: 0021-8979

eISSN: 1089-7550

Title: Mapping the band structure of GeSbTe phase change alloys around the Fermi level

Author(s): Kellner, J (Kellner, J.); Bihlmayer, G (Bihlmayer, G.); Liebmann, M (Liebmann, M.); Otto, S (Otto, S.); Pauly, C (Pauly, C.); Boschker, JE (Boschker, J. E.); Bragaglia, V (Bragaglia, V.); Cecchi, S (Cecchi, S.); Wang, RN (Wang, R. N.); Deringer, VL (Deringer, V. L.); Kupperts, P (Kueppers, P.); Bhaskar, P (Bhaskar, P.); Golias, E (Golias, E.); Sanchez-Barriga, J (Sanchez-Barriga, J.); Dronskowski, R (Dronskowski, R.); Fauster, T (Fauster, T.); Rader, O (Rader, O.); Calarco, R (Calarco, R.); Morgenstern, M (Morgenstern, M.)

Source: COMMUNICATIONS PHYSICS **Volume:** 1 **Article Number:** 5 **DOI:** 10.1038/s42005-018-0005-8 **Published:** FEB 22 2018

Accession Number: WOS:000433471800005

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Deringer, Volker	O-6003-2018	0000-0001-6873-0278

Bragaglia, Valeria	AAA-3276-2020	
Boschker, Jos	L-6517-2018	0000-0001-9122-2079
Golias, Evangelos	Q-1818-2016	0000-0003-1483-1959
Sánchez-Barriga, Jaime	I-3493-2013	0000-0001-9947-6700
Rader, Oliver	H-8498-2013	0000-0003-3639-0971
Fauster, Thomas	B-3096-2012	0000-0001-8049-2866
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Cecchi, Stefano		0000-0002-2243-7268
Bragaglia, Valeria		0000-0003-0636-4211
Liebmann, Marcus	G-6254-2012	0000-0003-4787-0129

ISSN: 2399-3650

Title: Catalytic growth of N-doped MgO on Mo(001)

Author(s): Grob, M (Grob, Martin); Pratzner, M (Pratzner, Marco); Morgenstern, M (Morgenstern, Markus); Lezaic, M (Lezaic, Marjana)

Source: PHYSICAL REVIEW B **Volume:** 86 **Issue:** 7 **Article Number:** 075455 **DOI:** 10.1103/PhysRevB.86.075455 **Published:** AUG 24 2012

Accession Number: WOS:000308003400005

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Lezaic, Marjana	H-8510-2013	0000-0002-7318-9444
Morgenstern, Markus	K-7785-2013	0000-0002-3993-6880
Elmers, Hans-Joachim	D-6729-2011	0000-0002-2525-9954

ISSN: 2469-9950

eISSN: 2469-9969

Title: First-principles study of magnetic interactions in 3d transition metal-doped phase-change materials

Author(s): Fukushima, T (Fukushima, T.); Katayama-Yoshida, H (Katayama-Yoshida, H.); Sato, K (Sato, K.); Fujii, H (Fujii, H.); Rabel, E (Rabel, E.); Zeller, R (Zeller, R.); Dederichs, PH (Dederichs, P. H.); Zhang, W (Zhang, W.); Mazzarello, R (Mazzarello, R.)

Source: PHYSICAL REVIEW B **Volume:** 90 **Issue:** 14 **Article Number:** 144417 **DOI:** 10.1103/PhysRevB.90.144417 **Published:** OCT 14 2014

Accession Number: WOS:000343304200001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zeller, Rudolf	K-7094-2013	0000-0002-9462-2649
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Fukushima, Tetsuya	E-5799-2010	

ISSN: 1098-0121

eISSN: 1550-235X

Title: Impact of the Ohmic Electrode on the Endurance of Oxide-Based Resistive Switching Memory

Author(s): Wiefels, S (Wiefels, Stefan); von Witzleben, M (von Witzleben, Moritz); Huttemann, M (Huettemann, Michael); Bottger, U (Boettger, Ulrich); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON ELECTRON DEVICES **Volume:** 68 **Issue:** 3 **Pages:** 1024-1030 **DOI:** 10.1109/TED.2021.3049765 **Published:** MAR 2021

Accession Number: WOS:000622100700013

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wiefels, Stefan	AAZ-2025-2021	0000-0003-2820-9677
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
von Witzleben, Moritz		0000-0002-1350-7092
Waser, Rainer	J-6103-2013	0000-0002-9080-8980

ISSN: 0018-9383

eISSN: 1557-9646

Title: Antiphase Boundaries Constitute Fast Cation Diffusion Paths in SrTiO(3)Memristive Devices

Author(s): Heisig, T (Heisig, Thomas); Kler, J (Kler, Joe); Du, HC (Du, Hongchu); Baeumer, C (Baeumer, Christoph); Hensling, F (Hensling, Felix); Glss, M (Gloess, Maria); Moors, M (Moors, Marco); Locatelli, A (Locatelli, Andrea); Menten, TO (Menten, Tevfik Onur); Genuzio, F (Genuzio, Francesca); Mayer, J (Mayer, Joachim); De Souza, RA (De Souza, Roger A.); Dittmann, R (Dittmann, Regina)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 30 **Issue:** 48 **Special Issue:** SI **Article Number:** 2004118 **DOI:** 10.1002/adfm.202004118 **Early Access Date:** SEP 2020 **Published:** NOV 2020

Accession Number: WOS:000569775200001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Baeumer, Christoph	AHA-1151-2022	
Moors, Marco		0000-0002-3340-9756
Baeumer, Christoph		0000-0003-0008-514X
Locatelli, Andrea		0000-0002-8072-7343

ISSN: 1616-301X

eISSN: 1616-3028

Title: Hafnium carbide formation in oxygen deficient hafnium oxide thin films

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Hildebrandt, E (Hildebrandt, E.); Szot, K (Szot, K.); Sharath, SU (Sharath, S. U.); Kurian, J (Kurian, J.); Komissinskiy, P (Komissinskiy, P.); Breuer, U (Breuer, U.); Waser, R (Waser, R.); Alff, L (Alff, L.)

Source: APPLIED PHYSICS LETTERS **Volume:** 108 **Issue:** 25 **Article Number:** 252903 **DOI:** 10.1063/1.4954714 **Published:** JUN 20 2016

Accession Number: WOS:000379039900026

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Komissinskiy, Philipp	I-4299-2013	0000-0003-1891-3011
Sharath, S. U.	D-7563-2017	0000-0002-8644-1303
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Alff, Lambert	O-9715-2019	
Alff, Lambert	N-9981-2017	
Ovsyannikov, Gennady A	A-9579-2014	0000-0002-9023-7049
Rodenbuecher, Christian	K-5460-2013	0000-0001-8029-3066
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 0003-6951
eISSN: 1077-3118

Title: Avalanche-Discharge-Induced Electrical Forming in Tantalum Oxide-Based Metal-Insulator-Metal Structures

Author(s): Skaja, K (Skaja, Katharina); Baumer, C (Baeumer, Christoph); Peters, O (Peters, Oliver); Menzel, S (Menzel, Stephan); Moors, M (Moors, Marco); Du, HC (Du, Hongchu); Bornhofft, M (Bornhoefft, Manuel); Schmitz, C (Schmitz, Christoph); Feyer, V (Feyer, Vitaliy); Jia, CL (Jia, Chun-Lin); Schneider, CM (Schneider, Claus Michael); Mayer, J (Mayer, Joachim); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 25 **Issue:** 46 **Pages:** 7154-7162 **DOI:** 10.1002/adfm.201502767 **Published:** DEC 9 2015

Accession Number: WOS:000366503700005

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Du, Hongchu	L-5603-2014	0000-0002-4661-4644
Baeumer, Christoph	AHA-1151-2022	
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
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Baeumer, Christoph		0000-0003-0008-514X
Feyer, Vitaliy		0000-0002-7104-5420

ISSN: 1616-301X

eISSN: 1616-3028

Title: Chemical Structure of Conductive Filaments in Tantalum Oxide Memristive Devices and Its Implications for the Formation Mechanism

Author(s): Heisig, T (Heisig, Thomas); Lange, K (Lange, Kristof); Gutsche, A (Gutsche, Alexander); Goss, KT (Goss, Kalle Thorben); Hamsch, S (Hamsch, Sebastian); Locatelli, A (Locatelli, Andrea); Mentis, TO (Mentis, Tevfik Onur); Genuzio, F (Genuzio, Francesca); Menzel, S (Menzel, Stephan); Dittmann, R (Dittmann, Regina)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 8 **Issue:** 8 **Special Issue:** SI **Article Number:** 2100936 **DOI:** 10.1002/aelm.202100936 **Early Access Date:** FEB 2022 **Published:** AUG 2022

Accession Number: WOS:000756639000001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 2199-160X

Title: Quantifying redox-induced Schottky barrier variations in memristive devices via in operando spectromicroscopy with graphene electrodes

Author(s): Baeumer, C (Baeumer, Christoph); Schmitz, C (Schmitz, Christoph); Marchewka, A (Marchewka, Astrid); Mueller, DN (Mueller, David N.); Valenta, R (Valenta, Richard); Hackl, J (Hackl, Johanna); Raab, N (Raab, Nicolas); Rogers, SP (Rogers, Steven P.); Khan, MI (Khan, M. Imtiaz); Nemsak, S (Nemsak, Slavomir);

Shim, M (Shim, Moonsub); Menzel, S (Menzel, Stephan); Schneider, CM (Schneider, Claus Michael); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: NATURE COMMUNICATIONS **Volume:** 7 **Article Number:** 12398 **DOI:** 10.1038/ncomms12398 **Published:** AUG 2016

Accession Number: WOS:000381772600001

PubMed ID: 27539213

Author Identifiers:

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Mueller, David	Q-6371-2016	0000-0002-1062-6985
Baeumer, Christoph	AHA-1151-2022	
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Schmitz, Christoph		0000-0003-4579-2454
Nemsak, Slavomir		0000-0002-6103-2925
Baeumer, Christoph		0000-0003-0008-514X
Marchewka, Astrid		0000-0002-1576-1684
Valenta, Rudolf		0000-0001-5944-3365

ISSN: 2041-1723

Title: Formation and Movement of Cationic Defects During Forming and Resistive Switching in SrTiO₃ Thin Film Devices

Author(s): Lenser, C (Lenser, Christian); Koehl, A (Koehl, Annemarie); Slipukhina, I (Slipukhina, Ivetta); Du, HC (Du, Hongchu); Patt, M (Patt, Marten); Feyer, V (Feyer, Vitaliy); Schneider, CM (Schneider, Claus M.); Lezaic, M (Lezaic, Marjana); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 25 **Issue:** 40 **Special Issue:** SI **Pages:** 6360-6368 **DOI:** 10.1002/adfm.201500851 **Published:** OCT 2015

Accession Number: WOS:000363685900006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Lezaic, Marjana	H-8510-2013	0000-0002-7318-9444
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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Du, Hongchu	L-5603-2014	0000-0002-4661-4644
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Lenser, Christian		0000-0001-5636-2201
Feyer, Vitaliy		0000-0002-7104-5420

ISSN: 1616-301X

eISSN: 1616-3028

Title: Self-reduction of the native TiO₂ (110) surface during cooling after thermal annealing - in-operando investigations

Author(s): Rogala, M (Rogala, M.); Bihlmayer, G (Bihlmayer, G.); Dabrowski, P (Dabrowski, P.); Rodenbuecher, C (Rodenbuecher, C.); Wrana, D (Wrana, D.); Krok, F (Krok, F.); Klusek, Z (Klusek, Z.); Szot, K (Szot, K.)

Source: SCIENTIFIC REPORTS **Volume:** 9 **Article Number:** 12563 **DOI:** 10.1038/s41598-019-48837-3 **Published:** AUG 29 2019

Accession Number: WOS:000483017100042

PubMed ID: 31467321

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Author	Web of Science ResearcherID	ORCID Number
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Wrana, Dominik	AAH-6467-2021	0000-0002-8239-0043
Bihlmayer, Gustav	G-5279-2013	0000-0002-6615-1122
Dabrowski, Pawel		0000-0002-9298-7046
Rogala, Maciej		0000-0002-7898-5087
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Krok, Franciszek		0000-0002-6931-3545

ISSN: 2045-2322

Title: Oxygen Exchange Processes between Oxide Memristive Devices and Water Molecules

Author(s): Heisig, T (Heisig, Thomas); Baeumer, C (Baeumer, Christoph); Gries, UN (Gries, Ute N.); Mueller, MP (Mueller, Michael P.); La Torre, C (La Torre, Camilla); Luebben, M (Luebben, Michael); Raab, N (Raab, Nicolas); Du, HC (Du, Hongchu); Menzel, S (Menzel, Stephan); Mueller, DN (Mueller, David N.); Jia, CL (Jia, Chun-Lin); Mayer, J (Mayer, Joachim); Waser, R (Waser, Rainer); Valov, I (Valov, Ilia); De Souza, RA (De Souza, Roger A.); Dittmann, R (Dittmann, Regina)

Source: ADVANCED MATERIALS **Volume:** 30 **Issue:** 29 **Article Number:** 1800957 **DOI:** 10.1002/adma.201800957 **Published:** JUL 19 2018

Accession Number: WOS:000438709400015

PubMed ID: 29882270

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Valov, Ilia	J-7021-2013	0000-0002-0728-7214
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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
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Lubben, Michael		0000-0003-0218-0183
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 0935-9648

eISSN: 1521-4095

Title: Detection of Fe²⁺ valence states in Fe doped SrTiO₃ epitaxial thin films grown by pulsed laser deposition

Author(s): Koehl, A (Koehl, Annemarie); Kajewski, D (Kajewski, Dariusz); Kubacki, J (Kubacki, Jerzy); Lenser, C (Lenser, Christian); Dittmann, R (Dittmann, Regina); Meuffels, P (Meuffels, Paul); Szot, K (Szot, Kristof); Waser, R (Waser, Rainer); Szade, J (Szade, Jacek)

Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS **Volume:** 15 **Issue:** 21 **Pages:** 8311-8317 **DOI:** 10.1039/c3cp50272d **Published:** 2013

Accession Number: WOS:000318565500041

PubMed ID: 23615619

Author Identifiers:

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980

Szot, Kristof/Krzysztof	K-5441-2013	0000-0001-8773-2754
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Kajewski, D.	B-9818-2016	0000-0002-0196-7489
Kubacki, Jerzy		0000-0001-9596-4539
Lenser, Christian		0000-0001-5636-2201
Szade, Jacek	W-6169-2018	0000-0003-2083-4275

ISSN: 1463-9076

Title: Local crystallographic shear structures in a[201] extended mixed dislocations of SrTiO₃ unraveled by atomic-scale imaging using transmission electron microscopy and spectroscopy

Author(s): Du, HC (Du, Hongchu); Jia, CL (Jia, Chun-Lin); Mayer, J (Mayer, Joachim)

Source: FARADAY DISCUSSIONS **Volume:** 213 **Pages:** 245-258 **DOI:** 10.1039/c8fd00102b **Published:** FEB 1 2019

Accession Number: WOS:000459184500016

PubMed ID: 30371713

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 1359-6640

eISSN: 1364-5498

Title: Nanospectroscopy of Infrared Phonon Resonance Enables Local Quantification of Electronic Properties in Doped SrTiO₃ Ceramics

Author(s): Lewin, M (Lewin, Martin); Baeumer, C (Baeumer, Christoph); Gunkel, F (Gunkel, Felix); Schwedt, A (Schwedt, Alexander); Gaussmann, F (Gaussmann, Fabian); Wueppen, J (Wueppen, Jochen); Meuffels, P (Meuffels, Paul); Jungbluth, B (Jungbluth, Bernd); Mayer, J (Mayer, Joachim); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Taubner, T (Taubner, Thomas)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 28 **Issue:** 42 **Article Number:** 1802834 **DOI:** 10.1002/adfm.201802834 **Published:** OCT 17 2018

Accession Number: WOS:000448257800003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Taubner, Thomas	E-8779-2012	0000-0002-0628-3043
Schwedt, Alexander	AAM-8961-2020	
Baeumer, Christoph	AHA-1151-2022	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Baeumer, Christoph		0000-0003-0008-514X
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ISSN: 1616-301X

eISSN: 1616-3028

Title: Layer-Switching Mechanisms in Sb₂Te₃

Author(s): Wang, JJ (Wang, Jiang-Jing); Wang, J (Wang, Jun); Xu, YZ (Xu, Yazhi); Xin, TJ (Xin, Tianjiao); Song, ZT (Song, Zhitang); Pohlmann, M (Pohlmann, Marc); Kaminski, M (Kaminski, Marvin); Lu, L (Lu, Lu); Du,

HC (Du, Hongchu); Jia, CL (Jia, Chun-Lin); Mazzarello, R (Mazzarello, Riccardo); Wuttig, M (Wuttig, Matthias); Zhang, W (Zhang, Wei)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 13 **Issue:** 10 **Article Number:** 1900320 **DOI:** 10.1002/pssr.201900320 **Published:** OCT 2019

Accession Number: WOS:000504860900019

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xjtu, campano	Q-1904-2015	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Wang, Jiangjing	AAD-2136-2021	0000-0001-7327-8159
Zhang, Wei	P-3546-2019	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 1862-6254

eISSN: 1862-6270

Title: A Deep Study of Resistance Switching Phenomena in TaOx ReRAM Cells: System-Theoretic Dynamic Route Map Analysis and Experimental Verification

Author(s): Ascoli, A (Ascoli, Alon); Menzel, S (Menzel, Stephan); Rana, V (Rana, Vikas); Kempen, T (Kempen, Tim); Messaris, I (Messaris, Ioannis); Demirkol, AS (Demirkol, Ahmet Samil); Schulten, M (Schulten, Michael); Siemon, A (Siemon, Anne); Tetzlaff, R (Tetzlaff, Ronald)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 8 **Issue:** 8 **Special Issue:** SI **Article Number:** 2200182 **DOI:** 10.1002/aelm.202200182 **Early Access Date:** AUG 2022 **Published:** AUG 2022

Accession Number: WOS:000838650600001

ISSN: 2199-160X

Title: Disorder Control in Crystalline GeSb₂Te₄ and its Impact on Characteristic Length Scales

Author(s): Duck, MM (Dueck, Matthias M.); Schafer, T (Schaefer, Tobias); Jakobs, S (Jakobs, Stefan); Schon, CF (Schoen, Carl-Friedrich); Niehaus, H (Niehaus, Hannah); Cojocar-Miredin, O (Cojocar-Miredin, Oana); Wuttig, M (Wuttig, Matthias)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 13 **Issue:** 4 **Article Number:** 1800578 **DOI:** 10.1002/pssr.201800578 **Published:** APR 2019

Accession Number: WOS:000465029000006

Author Identifiers:

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Duck, Matthias Maximilian		0000-0003-2016-630X

ISSN: 1862-6254

eISSN: 1862-6270

Title: Resistance Drift Convergence and Inversion in Amorphous Phase Change Materials

Author(s): Pries, J (Pries, Julian); Stenz, C (Stenz, Christian); Schafer, L (Schaefer, Lisa); Gutsche, A (Gutsche, Alexander); Wei, S (Wei, Shuai); Lucas, P (Lucas, Pierre); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 32 **Issue:** 48 **DOI:** 10.1002/adfm.202207194 **Early Access Date:** SEP 2022 **Published:** NOV 2022

Accession Number: WOS:000860828400001

Author Identifiers:

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Author	Web of Science ResearcherID	ORCID Number
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Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1616-301X

eISSN: 1616-3028

Title: Unique Bond Breaking in Crystalline Phase Change Materials and the Quest for Metavalent Bonding

Author(s): Zhu, M (Zhu, Min); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Mio, AM (Mio, Antonio M.); Keutgen, J (Keutgen, Jens); Kupers, M (Kuepers, Michael); Yu, Y (Yu, Yuan); Cho, JY (Cho, Ju-Young); Dronskowski, R (Dronskowski, Richard); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **Volume:** 30 **Issue:** 18 **Article Number:** 1706735 **DOI:** 10.1002/adma.201706735 **Published:** MAY 3 2018

Accession Number: WOS:000431615100017

PubMed ID: 29572962

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Zhu, Min	L-8985-2019	0000-0001-8057-9742
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Cojocaru-Miredin, Oana	M-9985-2016	0000-0001-6543-203X
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Mio, Antonio Massimiliano	Y-4803-2018	0000-0002-8280-5413

ISSN: 0935-9648

eISSN: 1521-4095

Title: Spectromicroscopic insights for rational design of redox-based memristive devices

Author(s): Baeumer, C (Baeumer, Christoph); Schmitz, C (Schmitz, Christoph); Ramadan, AHH (Ramadan, Amr H. H.); Du, HC (Du, Hongchu); Skaja, K (Skaja, Katharina); Feyer, V (Feyer, Vitaliy); Muller, P (Mueller, Philipp); Arndt, B (Arndt, Benedikt); Jia, CL (Jia, Chun-Lin); Mayer, J (Mayer, Joachim); De Souza, RA (De Souza, Roger A.); Schneider, CM (Schneider, Claus Michael); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: NATURE COMMUNICATIONS **Volume:** 6 **Article Number:** 8610 **DOI:** 10.1038/ncomms9610 **Published:** OCT 2015

Accession Number: WOS:000364934200012

PubMed ID: 26477940

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De Souza, Roger A.	F-3902-2011	0000-0001-7721-4128
Mayer, Joachim	K-7622-2013	0000-0003-3292-5342
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Baeumer, Christoph	AHA-1151-2022	
Schneider, Claus	H-7453-2012	0000-0002-3920-6255
Baeumer, Christoph		0000-0003-0008-514X
Feyer, Vitaliy		0000-0002-7104-5420

Title: Atomic Scale Understanding of the Epitaxy of Perovskite Oxides on Flexible Mica Substrate

Author(s): Lu, L (Lu, Lu); Dai, YZ (Dai, Yanzhu); Du, HC (Du, Hongchu); Liu, M (Liu, Ming); Wu, JY (Wu, Jingying); Zhang, Y (Zhang, Yong); Liang, ZS (Liang, Zhongshuai); Raza, S (Raza, Subhan); Wang, DW (Wang, Dawei); Jia, CL (Jia, Chun-Lin)

Source: ADVANCED MATERIALS INTERFACES **Volume:** 7 **Issue:** 2 **Article Number:** 1901265 **DOI:** 10.1002/admi.201901265 **Early Access Date:** DEC 2019 **Published:** JAN 2020

Accession Number: WOS:000503847100001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2196-7350

Title: Disentangling ionic and electronic contributions to the switching dynamics of memristive Pr_{0.7}Ca_{0.3}MnO₃/Al devices by employing a two-resistor model

Author(s): Gutsche, A (Gutsche, Alexander); Hamsch, S (Hamsch, Sebastian); Branca, NC (Branca, Nuno Casa); Dittmann, R (Dittmann, Regina); Scholz, S (Scholz, Stefan); Knoch, J (Knoch, Joachim)

Source: PHYSICAL REVIEW MATERIALS **Volume:** 6 **Issue:** 9 **Article Number:** 095002 **DOI:** 10.1103/PhysRevMaterials.6.095002 **Published:** SEP 21 2022

Accession Number: WOS:000874905300002

Author Identifiers:

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Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 2475-9953

Title: Realization of Minimum and Maximum Gate Function in Ta₂O₅-based Memristive Devices

Author(s): Breuer, T (Breuer, Thomas); Nielen, L (Nielen, Lutz); Roesgen, B (Roesgen, Bernd); Waser, R (Waser, Rainer); Rana, V (Rana, Vikas); Linn, E (Linn, Eike)

Source: SCIENTIFIC REPORTS **Volume:** 6 **Article Number:** 23967 **DOI:** 10.1038/srep23967 **Published:** APR 5 2016

Accession Number: WOS:000373372300002

PubMed ID: 27046279

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Nielen, Lutz	ABB-4145-2021	
Breuer, Thomas		0000-0001-6995-9226

ISSN: 2045-2322

Title: Multiple polarization orders in individual twinned colloidal nanocrystals of centrosymmetric HfO₂

Author(s): Du, HC (Du, Hongchu); Groh, C (Groh, Christoph); Jia, CL (Jia, Chun-Lin); Ohlerth, T (Ohlerth, Thorsten); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.); Simon, U (Simon, Ulrich); Mayer, J (Mayer,

Joachim)

Source: MATTER **Volume:** 4 **Issue:** 3 **Pages:** 986-1000 **DOI:** 10.1016/j.matt.2020.12.008 **Early Access Date:** MAR 2021 **Published:** MAR 3 2021

Accession Number: WOS:000632644900004

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Ohlerth, Thorsten		0000-0002-2169-8765
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2590-2393

eISSN: 2590-2385

Title: Impact of Fe doping on the electronic structure of SrTiO₃ thin films determined by resonant photoemission

Author(s): Kubacki, J (Kubacki, J.); Kajewski, D (Kajewski, D.); Goraus, J (Goraus, J.); Szot, K (Szot, K.); Koehl, A (Koehl, A.); Lenser, C (Lenser, Ch.); Dittmann, R (Dittmann, R.); Szade, J (Szade, J.)

Source: JOURNAL OF CHEMICAL PHYSICS **Volume:** 148 **Issue:** 15 **Article Number:** 154702 **DOI:** 10.1063/1.5007928 **Published:** APR 21 2018

Accession Number: WOS:000430485700012

PubMed ID: 29679970

Author Identifiers:

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Goraus, Jerzy		0000-0002-7711-727X
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Szade, Jacek	W-6169-2018	0000-0003-2083-4275
Lenser, Christian		0000-0001-5636-2201
Dittmann, Regina	J-9458-2013	0000-0003-1886-1864

ISSN: 0021-9606

eISSN: 1089-7690

Title: Subfilamentary Networks Cause Cycle-to-Cycle Variability in Memristive Devices

Author(s): Baeumer, C (Baeumer, Christoph); Valenta, R (Valenta, Richard); Schmitz, C (Schmitz, Christoph); Locatelli, A (Locatelli, Andrea); Menten, TO (Menten, Tevfik Onur); Rogers, SP (Rogers, Steven P.); Sala, A (Sala, Alessandro); Raab, N (Raab, Nicolas); Nemsak, S (Nemsak, Slavomir); Shim, M (Shim, Moonsub); Schneider, CM (Schneider, Claus M.); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: ACS NANO **Volume:** 11 **Issue:** 7 **Pages:** 6921-6929 **DOI:** 10.1021/acsnano.7b02113 **Published:** JUL 2017

Accession Number: WOS:000406649700040

PubMed ID: 28661649

Author Identifiers:

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Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Baeumer, Christoph	AHA-1151-2022	
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Locatelli, Andrea		0000-0002-8072-7343
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ISSN: 1936-0851

eISSN: 1936-086X

Title: Effect of electron conduction on the read noise characteristics in ReRAM devices

Author(s): Schnieders, K (Schnieders, K.); Funck, C (Funck, C.); Cuppers, F (Cueppers, F.); Aussen, S (Aussen, S.); Kempen, T (Kempen, T.); Sarantopoulos, A (Sarantopoulos, A.); Dittmann, R (Dittmann, R.); Menzel, S (Menzel, S.); Rana, V (Rana, V); Hoffmann-Eifert, S (Hoffmann-Eifert, S.); Wiefels, S (Wiefels, S.)

Source: APL MATERIALS **Volume:** 10 **Issue:** 10 **Article Number:** 101114 **DOI:** 10.1063/5.0109787 **Published:** OCT 1 2022

Accession Number: WOS:000878200200002

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Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Cuppers, Felix		0000-0002-1959-6524

ISSN: 2166-532X

Title: Strategies to Control the Relaxation Kinetics of Ag-Based Diffusive Memristors and Implications for Device Operation

Author(s): Chekol, SA (Chekol, Solomon Amsalu); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne)

Source: ADVANCED ELECTRONIC MATERIALS **Volume:** 8 **Issue:** 11 **Article Number:** 2200549 **DOI:** 10.1002/aelm.202200549 **Early Access Date:** JUL 2022 **Published:** NOV 2022

Accession Number: WOS:000831355900001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Chekol, Solomon Amsalu	GPS-7217-2022	

ISSN: 2199-160X

Title: Measurement of charge density in nanoscale materials using off-axis electron holography

Author(s): Zheng, FS (Zheng, Fengshan); Caron, J (Caron, Jan); Migunov, V (Migunov, Vadim); Beleggia, M (Beleggia, Marco); Pozzi, G (Pozzi, Giulio); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.)

Source: JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA **Volume:** 241 **Article Number:** 146881 **DOI:** 10.1016/j.elspec.2019.07.002 **Published:** MAY 2020

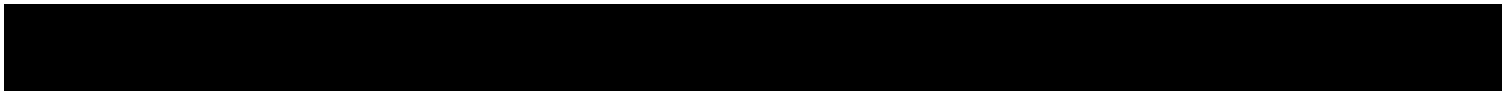
Accession Number: WOS:000540723700015

Author Identifiers:

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Caron, Jan		0000-0002-0873-889X

ISSN: 0368-2048

eISSN: 1873-2526



Title: Understanding the conductive channel evolution in Na:WO₃-x-based planar devices
Author(s): Shang, DS (Shang, Dashan); Li, PN (Li, Peining); Wang, T (Wang, Tao); Carria, E (Carria, Egidio); Sun, JR (Sun, Jirong); Shen, BG (Shen, Baogen); Taubner, T (Taubner, Thomas); Valov, I (Valov, Ilia); Waser, R (Waser, Rainer); Wuttig, M (Wuttig, Matthias)
Source: NANOSCALE **Volume:** 7 **Issue:** 14 **Pages:** 6023-6030 **DOI:** 10.1039/c4nr07545e **Published:** 2015
Accession Number: WOS:000351934700015
PubMed ID: 25766380
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Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Shang, Da-Shan	F-2810-2010	0000-0003-3573-8390
Li, Peining		0000-0003-3836-3803

ISSN: 2040-3364
eISSN: 2040-3372

Title: Implementation of Multinary Lukasiewicz Logic using Memristive Devices
Author(s): Bengel, C (Bengel, Christopher); Siemon, A (Siemon, Anne); Rana, V (Rana, Vikas); Menzel, S (Menzel, Stephan)
Book Group Author(s): IEEE
Source: 2021 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS (ISCAS) **Book Series:** IEEE International Symposium on Circuits and Systems **DOI:** 10.1109/ISCAS51556.2021.9401367 **Published:** 2021
Accession Number: WOS:000696765400311
Conference Title: IEEE International Symposium on Circuits and Systems (IEEE ISCAS)
Conference Date: MAY 22-28, 2021
Conference Location: Daegu, SOUTH KOREA
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Rana, Vikas	GLV-5735-2022	
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ISSN: 0271-4302
ISBN: 978-1-7281-9201-7

Title: Evidence for topological band inversion of the phase change material Ge₂Sb₂Te₅

Author(s): Pauly, C (Pauly, Christian); Liebmann, M (Liebmann, Marcus); Giussani, A (Giussani, Alessandro); Kellner, J (Kellner, Jens); Just, S (Just, Sven); Sanchez-Barriga, J (Sanchez-Barriga, Jaime); Rienks, E (Rienks, Emile); Rader, O (Rader, Oliver); Calarco, R (Calarco, Raffaella); Bihlmayer, G (Bihlmayer, Gustav); Morgenstern, M (Morgenstern, Markus)

Source: APPLIED PHYSICS LETTERS **Volume:** 103 **Issue:** 24 **Article Number:** 243109 **DOI:** 10.1063/1.4847715 **Published:** DEC 9 2013

Accession Number: WOS:000328706500076

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Giussani, Alessandro	D-3419-2012	0000-0001-6255-391X
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Just, Sven		0000-0003-4359-944X

ISSN: 0003-6951

eISSN: 1077-3118

Title: Toward Simplified Physics-Based Memristor Modeling of Valence Change Mechanism Devices

Author(s): Ntinas, V (Ntinas, Vasileios); Ascoli, A (Ascoli, Alon); Messaris, I (Messaris, Ioannis); Wang, YM (Wang, Yongmin); Rana, V (Rana, Vikas); Menzel, S (Menzel, Stephan); Tetzlaff, R (Tetzlaff, Ronald)

Source: IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-EXPRESS BRIEFS **Volume:** 69 **Issue:** 5 **Pages:** 2473-2477 **DOI:** 10.1109/TCSII.2022.3160304 **Published:** MAY 2022

Accession Number: WOS:000790814000021

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Wang, Yongmin		0000-0002-9560-9542

ISSN: 1549-7747

eISSN: 1558-3791

Title: Electrical nanopatterning of TiO₂ single crystal surfaces in situ via local resistance and potential switching

Author(s): Rodenbuecher, C (Rodenbuecher, C.); Wrana, D (Wrana, D.); Meuffels, P (Meuffels, P.); Rogala, M (Rogala, M.); Krok, F (Krok, F.); Szot, K (Szot, K.)

Source: APL MATERIALS **Volume:** 6 **Issue:** 6 **Article Number:** 066105 **DOI:** 10.1063/1.5028424 **Published:** JUN 2018

Accession Number: WOS:000436859000007

Author Identifiers:

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Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Rogala, Maciej		0000-0002-7898-5087
Krok, Franciszek		0000-0002-6931-3545

Title: Evolution of short-range order in chemically and physically grown thin film bilayer structures for electronic applications

Author(s): Dippel, AC (Dippel, Ann-Christin); Gutowski, O (Gutowski, Olof); Klemeyer, L (Klemeyer, Lars); Boettger, U (Boettger, Ulrich); Berg, F (Berg, Fenja); Schneller, T (Schneller, Theodor); Hardtdegen, A (Hardtdegen, Alexander); Aussen, S (Aussen, Stephan); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Zimmermann, MV (Zimmermann, Martin V.)

Source: NANOSCALE **Volume:** 12 **Issue:** 24 **Pages:** 13103-13112 **DOI:** 10.1039/d0nr01847c **Published:** JUN 28 2020

Accession Number: WOS:000545599900040

PubMed ID: 32543637

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Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X

ISSN: 2040-3364

eISSN: 2040-3372

Title: Realization of Boolean Logic Functionality Using Redox-Based Memristive Devices

Author(s): Siemon, A (Siemon, Anne); Breuer, T (Breuer, Thomas); Aslam, N (Aslam, Nabeel); Ferch, S (Ferch, Sebastian); Kim, W (Kim, Wonjoo); van den Hurk, J (van den Hurk, Jan); Rana, V (Rana, Vikas); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan); Linn, E (Linn, Eike)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 25 **Issue:** 40 **Special Issue:** SI **Pages:** 6414-6423 **DOI:** 10.1002/adfm.201500865 **Published:** OCT 2015

Accession Number: WOS:000363685900013

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Breuer, Thomas		0000-0001-6995-9226

ISSN: 1616-301X

eISSN: 1616-3028

Title: Anomalous Resistance Hysteresis in Oxide ReRAM: Oxygen Evolution and Reincorporation Revealed by In Situ TEM

Author(s): Cooper, D (Cooper, David); Baeumer, C (Baeumer, Christoph); Bernier, N (Bernier, Nicolas); Marchewka, A (Marchewka, Astrid); La Torre, C (La Torre, Camilla); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: ADVANCED MATERIALS **Volume:** 29 **Issue:** 23 **Article Number:** 1700212 **DOI:** 10.1002/adma.201700212 **Published:** JUN 20 2017

Accession Number: WOS:000403280600028

PubMed ID: 28417593

Author Identifiers:

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Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Dunin-Borkowski, Rafal	G-5597-2012	0000-0001-8082-0647
Baeumer, Christoph	AHA-1151-2022	
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Marchewka, Astrid		0000-0002-1576-1684
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 0935-9648

eISSN: 1521-4095

Title: Phase-change materials for non-volatile photonic applications**Author(s):** Wuttig, M (Wuttig, M.); Bhaskaran, H (Bhaskaran, H.); Taubner, T (Taubner, T.)**Source:** NATURE PHOTONICS **Volume:** 11 **Issue:** 8 **Pages:** 465-476 **DOI:**10.1038/NPHOTON.2017.126 **Published:** AUG 2017**Accession Number:** WOS:000406692600011**Author Identifiers:**

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Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Bhaskaran, Harish	ABE-7858-2020	
Taubner, Thomas	E-8779-2012	0000-0002-0628-3043

ISSN: 1749-4885

eISSN: 1749-4893

Title: Phase Change Materials and Superlattices for Non-Volatile Memories PREFACE**Author(s):** Zhang, W (Zhang, Wei); Wuttig, M (Wuttig, Matthias)**Source:** PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 13 **Issue:** 4 **Article Number:**1900130 **DOI:** 10.1002/pssr.201900130 **Published:** APR 2019**Accession Number:** WOS:000465029000001**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
xjtu, campano	Q-1904-2015	
Zhang, Wei	P-3546-2019	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 1862-6254

eISSN: 1862-6270

Title: Nanoscale Three-Dimensional Charge Density and Electric Field Mapping by Electron Holographic Tomography**Author(s):** Zheng, FS (Zheng, Fengshan); Migunov, V (Migunov, Vadim); Caron, J (Caron, Jan); Du, HC (Du, Hongchu); Pozzi, G (Pozzi, Giulio); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.)**Source:** NANO LETTERS **DOI:** 10.1021/acs.nanolett.2c03879 **Early Access Date:** JAN 2023**Accession Number:** WOS:000924397400001**PubMed ID:** 36689622**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
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Dunin-Borkowski, Rafal	G-5597-2012	0000-0001-8082-0647

ISSN: 1530-6984

eISSN: 1530-6992

Title: Electron-beam-induced charging of an A(12)O(3) nanotip studied using off-axis electron holography

Author(s): Zheng, FS (Zheng, Fengshan); Beleggia, M (Beleggia, Marco); Migunov, V (Migunov, Vadim); Pozzi, G (Pozzi, Giulio); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.)

Source: ULTRAMICROSCOPY **Volume:** 241 **Article Number:** 113593 **DOI:**

10.1016/j.ultramic.2022.113593 **Early Access Date:** AUG 2022 **Published:** NOV 2022

Accession Number: WOS:000843004400001

PubMed ID: 35944328

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zheng, Fengshan	A-8942-2014	0000-0001-7354-041X
Beleggia, Marco		0000-0002-2888-1888

ISSN: 0304-3991

eISSN: 1879-2723

Title: Realization of Memristor-aided Logic Gates with Analog Memristive Devices

Author(s): Cai, H (Cai, Hao); Chen, ZA (Chen, Ziang); Zhao, XY (Zhao, Xianyue); Bengel, C (Bengel, Christopher); Liu, F (Liu, Feng); Schmidt, H (Schmidt, Heidemarie); Menzel, S (Menzel, Stephan); Du, N (Du, Nan)

Book Group Author(s): IEEE

Source: 2022 11TH INTERNATIONAL CONFERENCE ON MODERN CIRCUITS AND SYSTEMS TECHNOLOGIES (MOCAST) **DOI:** 10.1109/MOCAST54814.2022.9837637 **Published:** 2022

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Conference Title: 11th International Conference on Modern Circuits and Systems Technologies (MOCAST)

Conference Date: JUN 08-10, 2022

Conference Location: Bremen, GERMANY

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Schmidt, Heidemarie	E-4627-2012	
Bengel, Christopher		0000-0002-2892-9837
Chen, Ziang		0000-0002-0697-8136

ISBN: 978-1-6654-6717-9

Title: Variability-Aware Modeling of Filamentary Oxide-Based Bipolar Resistive Switching Cells Using SPICE Level Compact Models

Author(s): Bengel, C (Bengel, Christopher); Siemon, A (Siemon, Anne); Cuppers, F (Cuppers, Felix); Hoffmann-Eifert, S (Hoffmann-Eifert, Susanne); Hardtdegen, A (Hardtdegen, Alexander); von Witzleben, M (von Witzleben, Moritz); Hellmich, L (Hellmich, Lena); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS **Volume:** 67 **Issue:** 12 **Pages:** 4618-4630 **DOI:** 10.1109/TCSI.2020.3018502 **Published:** DEC 2020

Accession Number: WOS:000596021000038

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Author	Web of Science ResearcherID	ORCID Number
Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Bengel, Christopher		0000-0002-2892-9837
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Cuppers, Felix		0000-0002-1959-6524
von Witzleben, Moritz		0000-0002-1350-7092
Hoffmann-Eifert, Susanne	J-9432-2013	0000-0003-1682-826X

ISSN: 1549-8328

eISSN: 1558-0806

Title: Rocking curve imaging of high quality sapphire crystals in backscattering geometry**Author(s):** Jafari, A (Jafari, A.); Sergueev, I (Sergueev, I.); Bessas, D (Bessas, D.); Klobes, B (Klobes, B.); Roschin, BS (Roschin, B. S.); Asadchikov, VE (Asadchikov, V. E.); Alexeev, P (Alexeev, P.); Hartwig, J (Hartwig, J.); Chumakov, AI (Chumakov, A. I.); Wille, HC (Wille, H. -C.); Hermann, RP (Hermann, R. P.)**Source:** JOURNAL OF APPLIED PHYSICS **Volume:** 121 **Issue:** 4 **Article Number:** 044901 **DOI:** 10.1063/1.4974106 **Published:** JAN 28 2017**Accession Number:** WOS:000393480100032**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Bessas, Dimitrios	I-5262-2013	0000-0003-0240-2540
Roshchin, Boris S.	F-5519-2014	0000-0001-8001-870X
Bessas, Dimitrios	HKV-2616-2023	0000-0003-0240-2540
Hermann, Raphael P	F-6257-2013	0000-0002-6138-5624
Sergeev, Ilya	N-6591-2013	0000-0002-7614-2238
Wille, Hans-Christian		0000-0003-0851-3831
Jafari, Atefeh		0000-0001-6011-1720
Klobes, Benedikt		0000-0001-7195-5849

ISSN: 0021-8979

eISSN: 1089-7550

Title: The interplay between Peierls distortions and metavalent bonding in IV-VI compounds: comparing GeTe with related monochalcogenides**Author(s):** Raty, JY (Raty, Jean-Yves); Wuttig, M (Wuttig, Matthias)**Source:** JOURNAL OF PHYSICS D-APPLIED PHYSICS **Volume:** 53 **Issue:** 23 **Article Number:** 234002**DOI:** 10.1088/1361-6463/ab7e66 **Published:** JUN 3 2020**Accession Number:** WOS:000525102100001

ISSN: 0022-3727

eISSN: 1361-6463

Title: Quantitative measurement of charge accumulation along a quasi-one-dimensional W5O14 nanowire during electron field emission**Author(s):** Zheng, F (Zheng, Fengshan); Pozzi, G (Pozzi, Giulio); Migunov, V (Migunov, Vadim); Pirker, L (Pirker, Luka); Remskar, M (Remskar, Maja); Beleggia, M (Beleggia, Marco); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.)**Source:** NANOSCALE **Volume:** 12 **Issue:** 19 **Pages:** 10559-10564 **DOI:** 10.1039/d0nr00739k **Published:** MAY 21 2020

Accession Number: WOS:000537113200010

PubMed ID: 32162633

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zheng, Fengshan	A-8942-2014	0000-0001-7354-041X
Pirker, Luka	ACO-9101-2022	0000-0003-0741-0048
Beleggia, Marco	AAH-3934-2021	0000-0002-2888-1888

ISSN: 2040-3364

eISSN: 2040-3372

Title: Quantitative measurement of nanoscale electrostatic potentials and charges using off-axis electron holography: Developments and opportunities

Author(s): McCartney, MR (McCartney, Martha R.); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.); Smith, DJ (Smith, David J.)

Source: ULTRAMICROSCOPY **Volume:** 203 **Special Issue:** SI **Pages:** 105-118 **DOI:** 10.1016/j.ultramic.2019.01.008 **Published:** AUG 2019

Accession Number: WOS:000465021000014

PubMed ID: 30772077

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Smith, David	C-1995-2013	0000-0002-8810-4386
Smith, David	GQQ-8257-2022	
Dunin-Borkowski, Rafal	G-5597-2012	0000-0001-8082-0647

ISSN: 0304-3991

eISSN: 1879-2723

Title: Spectroscopic Proof of the Correlation between Redox-State and Charge-Carrier Transport at the Interface of Resistively Switching Ti/PCMO Devices

Author(s): Herpers, A (Herpers, Anja); Lenser, C (Lenser, Christian); Park, C (Park, Chanwoo); Offi, F (Offi, Francesco); Borgatti, F (Borgatti, Francesco); Panaccione, G (Panaccione, Giancarlo); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Dittmann, R (Dittmann, Regina)

Source: ADVANCED MATERIALS **Volume:** 26 **Issue:** 17 **Pages:** 2730-2735 **DOI:** 10.1002/adma.201304054 **Published:** MAY 2014

Accession Number: WOS:000335401100018

PubMed ID: 24706476

Author Identifiers:

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Borgatti, Francesco	H-9777-2014	0000-0003-4659-4329
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Lenser, Christian		0000-0001-5636-2201

ISSN: 0935-9648

eISSN: 1521-4095

Title: UV radiation enhanced oxygen vacancy formation caused by the PLD plasma plume

Author(s): Hensling, FVE (Hensling, F. V. E.); Keeble, DJ (Keeble, D. J.); Zhu, J (Zhu, J.); Brose, S (Brose, S.); Xu, C (Xu, C.); Gunkel, F (Gunkel, F.); Danylyuk, S (Danylyuk, S.); Nonnenmann, SS (Nonnenmann, S. S.); Egger, W (Egger, W.); Dittmann, R (Dittmann, R.)

Source: SCIENTIFIC REPORTS **Volume:** 8 **Article Number:** 8846 **DOI:** 10.1038/s41598-018-27207-5 **Published:** JUN 11 2018

Accession Number: WOS:000434776600052

PubMed ID: 29892095

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Author	Web of Science ResearcherID	ORCID Number
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Brose, Sascha	ABF-5509-2021	
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Xu, Chencheng	HNS-1645-2023	0000-0003-1942-6901
Keeble, David	C-6633-2012	0000-0002-5378-799X
Brose, Sascha		0000-0002-6955-6379
Nonnenmann, Stephen		0000-0002-5369-9279
Hensling, Felix		0000-0003-3852-7214

ISSN: 2045-2322

Title: Organic photovoltaic modules with new world record efficiencies

Author(s): Distler, A (Distler, Andreas); Brabec, CJ (Brabec, Christoph J.); Egelhaaf, HJ (Egelhaaf, Hans-Joachim)

Source: PROGRESS IN PHOTOVOLTAICS **Volume:** 29 **Issue:** 1 **Pages:** 24-31 **DOI:** 10.1002/pip.3336 **Early**

Access Date: SEP 2020 **Published:** JAN 2021

Accession Number: WOS:000569227600001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Egelhaaf, Hans-Joachim		0000-0002-8263-8125
Distler, Andreas		0000-0003-3500-2180

ISSN: 1062-7995

eISSN: 1099-159X

Title: Boron Strengthened GeTe-Based Alloys for Robust Thermoelectric Devices with High Output Power Density

Author(s): Bai, GY (Bai, Guangyuan); Yu, Y (Yu, Yuan); Wu, XL (Wu, Xuelian); Li, JQ (Li, Junqin); Xie, YC (Xie, Yucheng); Hu, LP (Hu, Lipeng); Liu, FS (Liu, Fusheng); Wuttig, M (Wuttig, Matthias); Cojocar-Miredin, O (Cojocar-Miredin, Oana); Zhang, CH (Zhang, Chaohua)

Source: ADVANCED ENERGY MATERIALS **Volume:** 11 **Issue:** 37 **Article Number:** 2102012 **DOI:** 10.1002/aenm.202102012 **Early Access Date:** AUG 2021 **Published:** OCT 2021

Accession Number: WOS:000682442800001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
zhang, chao	HTO-2468-2023	

ISSN: 1614-6832

eISSN: 1614-6840

Title: HRS Instability in Oxide-Based Bipolar Resistive Switching Cells

Author(s): Wiefels, S (Wiefels, Stefan); Bengel, C (Bengel, Christopher); Kopperberg, N (Kopperberg, Nils); Zhang, KH (Zhang, Kaihua); Waser, R (Waser, Rainer); Menzel, S (Menzel, Stephan)

Source: IEEE TRANSACTIONS ON ELECTRON DEVICES **Volume:** 67 **Issue:** 10 **Pages:** 4208-4215 **DOI:** 10.1109/TED.2020.3018096 **Published:** OCT 2020

Accession Number: WOS:000572635400044

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Wiefels, Stefan	AAY-2025-2021	0000-0003-2820-9677
Kopperberg, Nils		0000-0001-5422-7372
Bengel, Christopher		0000-0002-2892-9837
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Zhang, Kaihua		0000-0001-6358-2202

ISSN: 0018-9383

eISSN: 1557-9646

Title: Stability of Wadsley-type vanadium oxides V2O5 and V6O13 at high pressures

Author(s): Hakala, V (Hakala, Viliam); Manousou, DK (Manousou, Dimitra K.); Glazyrin, K (Glazyrin, Konstantin); Crichton, WA (Crichton, Wilson A.); Friese, K (Friese, Karen); Grzechnik, A (Grzechnik, Andrzej)

Source: JOURNAL OF ALLOYS AND COMPOUNDS **Volume:** 911 **Article Number:** 164966 **DOI:** 10.1016/j.jallcom.2022.164966 **Early Access Date:** APR 2022 **Published:** AUG 5 2022

Accession Number: WOS:000800374400003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Hakala, Branislav Viliam		0000-0002-8429-3773

ISSN: 0925-8388

eISSN: 1873-4669

Title: Migration Kinetics of Surface Ions in Oxygen-Deficient Perovskite During Topotactic Transitions

Author(s): Cao, L (Cao, Lei); Petracic, O (Petracic, Oleg); Wei, XK (Wei, Xian-Kui); Zhang, HB (Zhang, Hengbo); Duchon, T (Duchon, Tomas); Gunkel, F (Gunkel, Felix); Koutsioubas, A (Koutsioubas, Alexandros); Zhernenkov, K (Zhernenkov, Kirill); Rushchanskii, KZ (Rushchanskii, Konstantin Z.); Hartmann, H (Hartmann, Heinrich); Wilhelm, M (Wilhelm, Marek); Li, ZC (Li, Zichao); Xie, YF (Xie, Yufang); He, SQ (He, Suqin); Weber, ML (Weber, Moritz L.); Stellhorn, A (Stellhorn, Annika); Mayer, J (Mayer, Joachim); Zhou, SQ (Zhou, Shengqiang); Bruckel, T (Brueckel, Thomas); Veltruska, K (Veltruska, Katefina)

Source: SMALL **Volume:** 17 **Issue:** 51 **Article Number:** 2104356 **DOI:** 10.1002/sml.202104356 **Early Access Date:** NOV 2021 **Published:** DEC 2021

Accession Number: WOS:000719613100001

PubMed ID: 34791798

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Duchoň, Tomáš	O-5143-2017	0000-0002-3035-012X
Cao, Lei		0000-0003-4628-4515

Petracic, Oleg		0000-0002-5138-9832
Stellhorn, Annika		0000-0003-2868-657X

ISSN: 1613-6810

eISSN: 1613-6829

Title: In situ study of vacancy disordering in crystalline phase-change materials under electron beam irradiation

Author(s): Jiang, TT (Jiang, Ting-Ting); Wang, XD (Wang, Xu-Dong); Wang, JJ (Wang, Jiang-Jing); Zhou, YX (Zhou, Yu-Xing); Zhang, DL (Zhang, Dan-Li); Lu, L (Lu, Lu); Jia, CL (Jia, Chun-Lin); Wuttig, M (Wuttig, Matthias); Mazzarello, R (Mazzarello, Riccardo); Zhang, W (Zhang, Wei)

Source: ACTA MATERIALIA **Volume:** 187 **Pages:** 103-111 **DOI:** 10.1016/j.actamat.2020.01.043 **Published:** APR 2020

Accession Number: WOS:000518706700012

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zhang, Wei	P-3546-2019	
Wang, Jiangjing	AAD-2136-2021	0000-0001-7327-8159
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
xjtu, campano	Q-1904-2015	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1359-6454

eISSN: 1873-2453

Title: The impact of crystal size and temperature on the adsorption-induced flexibility of the Zr-based metal-organic framework DUT-98

Author(s): Krause, S (Krause, Simon); Bon, V (Bon, Volodymyr); Du, HC (Du, Hongchu); Dunin-Borkowski, RE (Dunin-Borkowski, Rafal E.); Stoeck, U (Stoeck, Ulrich); Senkowska, I (Senkowska, Irena); Kaskel, S (Kaskel, Stefan)

Source: BEILSTEIN JOURNAL OF NANOTECHNOLOGY **Volume:** 10 **Pages:** 1737-1744 **DOI:** 10.3762/bjnano.10.169 **Published:** AUG 20 2019

Accession Number: WOS:000482478100001

PubMed ID: 31501745

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Dunin-Borkowski, Rafal	G-5597-2012	0000-0001-8082-0647
Krause, Simon	AAU-8501-2020	0000-0001-9504-8514
Kaskel, Stefan	T-8393-2017	0000-0003-4572-0303
Senkowska, Irena	U-1842-2017	0000-0001-7052-1029
Bon, Volodymyr	N-6875-2018	0000-0002-9851-5031
Du, Hongchu	L-5603-2014	0000-0002-4661-4644

ISSN: 2190-4286

Title: Resistive Switching Mechanisms on TaOx and SrRuO3 Thin-Film Surfaces Probed by Scanning Tunneling Microscopy

Author(s): Moors, M (Moors, Marco); Adepalli, KK (Adepalli, Kiran Kumar); Lu, QY (Lu, Qiyang); Wedig, A (Wedig, Anja); Baumer, C (Baumer, Christoph); Skaja, K (Skaja, Katharina); Arndt, B (Arndt, Benedikt); Tuller, HL (Tuller, Harry Louis); Dittmann, R (Dittmann, Regina); Waser, R (Waser, Rainer); Yildiz, B (Yildiz, Bilge);

Valov, I (Valov, Ilia)

Source: ACS NANO **Volume:** 10 **Issue:** 1 **Pages:** 1481-1492 **DOI:** 10.1021/acsnano.5b07020 **Published:** JAN 2016

Accession Number: WOS:000369115800166

PubMed ID: 26738414

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Valov, Ilia	J-7021-2013	0000-0002-0728-7214
Yildiz, Bilge	AAA-8132-2020	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
		0000-0002-9155-3684
Moors, Marco		0000-0002-3340-9756
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 1936-0851

eISSN: 1936-086X

Title: In situ study of redox processes on the surface of SrTiO₃ single crystals

Author(s): Wrana, D (Wrana, D.); Rodenbuecher, C (Rodenbuecher, C.); Belza, W (Belza, W.); Szot, K (Szot, K.); Krok, F (Krok, F.)

Source: APPLIED SURFACE SCIENCE **Volume:** 432 **Pages:** 46-52 **DOI:** 10.1016/j.apsusc.2017.06.272 **Part:** A **Published:** FEB 28 2018

Accession Number: WOS:000416965500009

Conference Title: 32nd European Conference on Surface Science (ECOSS)

Conference Date: AUG 28-SEP 02, 2016

Conference Location: Paris, FRANCE

Conference Sponsors: Int Union Vacuum Sci, Tech & Applicat, Surface Sci Div, European Phys Soc, Surface & Interface Sect, Condensed Matter Div, French Vacuum Soc, ESRF, UGA, Inst Neel, UGA, Grenoble INP, UGA, LETI CEA Grenoble, UGA, LITEN CEA Grenoble, UGA, INAC CEA Grenoble, Inst Laue Langevin, Chimie ParisTech

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Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 0169-4332

eISSN: 1873-5584

Title: Enhancing thermoelectric performance of Sb₂Te₃ through swapped bilayer defects

Author(s): Wang, JJ (Wang, Jiangjing); Zhou, CJ (Zhou, Chongjian); Yu, Y (Yu, Yuan); Zhou, YX (Zhou, Yuxing); Lu, L (Lu, Lu); Ge, BZ (Ge, Bangzhi); Cheng, YD (Cheng, Yudong); Jia, CL (Jia, Chun-Lin); Mazzarello, R (Mazzarello, Riccardo); Shi, ZQ (Shi, Zhongqi); Wuttig, M (Wuttig, Matthias); Zhang, W (Zhang, Wei)

Source: NANO ENERGY **Volume:** 79 **Article Number:** 105484 **DOI:** 10.1016/j.nanoen.2020.105484 **Published:** JAN 2021

Accession Number: WOS:000620507900001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Wang, Jiangjing	AAD-2136-2021	0000-0001-7327-8159
Zhang, Wei	P-3546-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 2211-2855

eISSN: 2211-3282

Title: Direct atomic insight into the role of dopants in phase-change materials**Author(s):** Zhu, M (Zhu, Min); Song, WX (Song, Wenxiong); Konze, PM (Konze, Philipp M.); Li, T (Li, Tao); Gault, B (Gault, Baptiste); Chen, X (Chen, Xin); Shen, JB (Shen, Jiabin); Lv, SL (Lv, Shilong); Song, ZT (Song, Zhitang); Wuttig, M (Wuttig, Matthias); Dronskowski, R (Dronskowski, Richard)**Source:** NATURE COMMUNICATIONS **Volume:** 10 **Article Number:** 3525 **DOI:** 10.1038/s41467-019-11506-0 **Published:** AUG 6 2019**Accession Number:** WOS:000478867500010**PubMed ID:** 31388013**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
Zhu, Min	AAN-4800-2020	0000-0001-8057-9742
Dronskowski, Richard	ABB-2547-2021	0000-0002-1925-9624
Gault, Baptiste		0000-0002-4934-0458
Konze, Philipp		0000-0002-7946-702X
Wuttig, Matthias		0000-0003-1498-1025
Song, Wen-Xiong		0000-0003-0754-5786

ISSN: 2041-1723

Title: Identifying Ionic and Electronic Charge Transfer at Oxide Heterointerfaces**Author(s):** Rose, MA (Rose, Marc-Andre); Smid, B (Smid, Bretislav); Vorokhta, M (Vorokhta, Mykhailo); Slipukhina, I (Slipukhina, Ivetta); Andra, M (Andra, Michael); Bluhm, H (Bluhm, Hendrik); Duchon, T (Duchon, Tomas); Lezaic, M (Lezaic, Marjana); Chambers, SA (Chambers, Scott A.); Dittmann, R (Dittmann, Regina); Mueller, DN (Mueller, David N.); Gunkel, F (Gunkel, Felix)**Source:** ADVANCED MATERIALS **Volume:** 33 **Issue:** 4 **Article Number:** 2004132 **DOI:** 10.1002/adma.202004132 **Early Access Date:** DEC 2020 **Published:** JAN 2021**Accession Number:** WOS:000594757100001**PubMed ID:** 33263190**Author Identifiers:**

Author	Web of Science ResearcherID	ORCID Number
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Vorokhta, Mykhailo	HDM-7833-2022	0000-0001-8382-7027
Šmíd, Břetislav	P-5046-2017	0000-0002-8355-1291
Gunkel, Felix	Q-7327-2017	0000-0003-1178-9986

ISSN: 0935-9648

eISSN: 1521-4095

Title: A bottom-up process of self-formation of highly conductive titanium oxide (TiO) nanowires on reduced SrTiO₃

Author(s): Wrana, D (Wrana, Dominik); Rodenbucher, C (Rodenbucher, Christian); Jany, BR (Jany, Benedykt R.); Kryshtal, O (Kryshtal, Oleksandr); Cempura, G (Cempura, Grzegorz); Kruk, A (Kruk, Adam); Indyka, P (Indyka, Paulina); Szot, K (Szot, Krzysztof); Krok, F (Krok, Franciszek)

Source: NANOSCALE **Volume:** 11 **Issue:** 1 **Pages:** 89-97 **DOI:** 10.1039/c8nr04545c **Published:** JAN 7 2019

Accession Number: WOS:000454327500036

PubMed ID: 30226243

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wrana, Dominik	AAH-6467-2021	0000-0002-8239-0043
Kryshtal, Aleksandr	AAW-8004-2020	0000-0002-6528-8821
Jany, Benedykt R.	H-5186-2016	0000-0002-3196-7244
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Indyka, Paulina	J-1482-2012	0000-0002-9684-2127
Kruk, Adam		0000-0001-9269-8271
Szot, Kristof	K-5441-2013	0000-0001-8773-2754
Krok, Franciszek		0000-0002-6931-3545
Cempura, Grzegorz		0000-0002-1875-1588

ISSN: 2040-3364

eISSN: 2040-3372

Title: Sub-Angstrom Characterization of the Structural Origin for High In-Plane Anisotropy in 2D GeS₂

Author(s): Wang, XD (Wang, Xudong); Tan, JL (Tan, Jieling); Han, CQ (Han, Chengqian); Wang, JJ (Wang, Jiang-Jing); Lu, L (Lu, Lu); Du, HC (Du, Hongchu); Jia, CL (Jia, Chun-Lin); Deringer, VL (Deringer, Volker L.); Zhou, J (Zhou, Jian); Zhang, W (Zhang, Wei)

Source: ACS NANO **Volume:** 14 **Issue:** 4 **Pages:** 4456-4462 **DOI:** 10.1021/acsnano.9b10057 **Published:** APR 28 2020

Accession Number: WOS:000529895500065

PubMed ID: 32275386

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Zhou, Jian	AAI-1003-2019	0000-0002-2606-4833
Zhang, Wei	P-3546-2019	
xjtu, camprano	Q-1904-2015	
Du, Hongchu	L-5603-2014	0000-0002-4661-4644
Zhang, Wei	I-3541-2012	0000-0002-0720-4781

ISSN: 1936-0851

eISSN: 1936-086X

Title: Massively parallel density functional calculations for thousands of atoms: KKRnano

Author(s): Thiess, A (Thiess, A.); Zeller, R (Zeller, R.); Bolten, M (Bolten, M.); Dederichs, PH (Dederichs, P. H.); Blugel, S (Blugel, S.)

Source: PHYSICAL REVIEW B **Volume:** 85 **Issue:** 23 **Article Number:** 235103 **DOI:** 10.1103/PhysRevB.85.235103 **Published:** JUN 4 2012

Accession Number: WOS:000304748900001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Zeller, Rudolf	K-7094-2013	0000-0002-9462-2649
Bolten, Matthias	AAM-9090-2020	0000-0002-8682-7652
Blügel, Stefan	J-8323-2013	0000-0001-9987-4733

ISSN: 1098-0121

Title: Phonon Spectroscopy in Antimony and Tellurium Oxides

Author(s): Jafari, A (Jafari, Atefeh); Klobes, B (Klobes, Benedikt); Sergueev, I (Sergueev, Ilya); Moseley, DH (Moseley, Duncan H.); Manley, ME (Manley, Michael E.); Dronskowski, R (Dronskowski, Richard); Deringer, VL (Deringer, Volker L.); Stoffel, RP (Stoffel, Ralf P.); Bessas, D (Bessas, Dimitrios); Chumakov, AI (Chumakov, Aleksandr, I); Ruffer, R (Ruffer, Rudolf); Mahmoud, A (Mahmoud, Abdelfattah); Bridges, CA (Bridges, Craig A.); Daemen, LL (Daemen, Luke L.); Cheng, YQ (Cheng, Yongqiang); Ramirez-Cuesta, AJ (Ramirez-Cuesta, Anibal J.); Hermann, RP (Hermann, Raphael P.)

Source: JOURNAL OF PHYSICAL CHEMISTRY A **Volume:** 124 **Issue:** 39 **Pages:** 7869-7880 **DOI:** 10.1021/acs.jpca.0c05060 **Published:** OCT 1 2020

Accession Number: WOS:000577149400002

PubMed ID: 32894948

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Cheng, Yongqiang		0000-0002-3263-4812
Klobes, Benedikt		0000-0001-7195-5849

ISSN: 1089-5639

eISSN: 1520-5215

Title: Designing crystallization in phase-change materials for universal memory and neuro-inspired computing

Author(s): Zhang, W (Zhang, Wei); Mazzarello, R (Mazzarello, Riccardo); Wuttig, M (Wuttig, Matthias); Ma, E (Ma, Evan)

Source: NATURE REVIEWS MATERIALS **Volume:** 4 **Issue:** 3 **Pages:** 150-168 **DOI:** 10.1038/s41578-018-0076-x **Published:** MAR 2019

Accession Number: WOS:000460438000003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Ma, En	A-3232-2010	
Zhang, Wei	I-3541-2012	0000-0002-0720-4781
Zhang, Wei	P-3546-2019	

xjtu, campanano	Q-1904-2015	
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ISSN: 2058-8437

Title: 2D or Not 2D: Strain Tuning in Weakly Coupled Heterostructures

Author(s): Wang, RN (Wang, Ruining); Lange, FRL (Lange, Felix R. L.); Cecchi, S (Cecchi, Stefano); Hanke, M (Hanke, Michael); Wuttig, M (Wuttig, Matthias); Calarco, R (Calarco, Raffaella)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 28 **Issue:** 14 **Article Number:** 1705901 **DOI:** 10.1002/adfm.201705901 **Published:** APR 5 2018

Accession Number: WOS:000429410400006

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Cecchi, Stefano		0000-0002-2243-7268

ISSN: 1616-301X

eISSN: 1616-3028

Title: Topological Defects with Distinct Dipole Configurations in PbTiO₃/SrTiO₃ Multilayer Films

Author(s): Lu, L (Lu, Lu); Nahas, Y (Nahas, Youstra); Liu, M (Liu, Ming); Du, HC (Du, Hongchu); Jiang, ZJ (Jiang, Zhijun); Ren, SP (Ren, Shengping); Wang, DW (Wang, Dawei); Jin, L (Jin, Lei); Prokhorenko, S (Prokhorenko, Sergei); Jia, CL (Jia, Chun-Lin); Bellaiche, L (Bellaiche, Laurent)

Source: PHYSICAL REVIEW LETTERS **Volume:** 120 **Issue:** 17 **Article Number:** 177601 **DOI:** 10.1103/PhysRevLett.120.177601 **Published:** APR 23 2018

Accession Number: WOS:000430547800001

PubMed ID: 29756809

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Jin, Lei	D-2404-2010	0000-0001-6924-2364
Jiang, Zhijun	G-4302-2018	0000-0002-2106-9846

ISSN: 0031-9007

eISSN: 1079-7114

Title: Topotactic Phase Transition Driving Memristive Behavior

Author(s): Nallagatla, VR (Nallagatla, Venkata R.); Heisig, T (Heisig, Thomas); Baeumer, C (Baeumer, Christoph); Feyer, V (Feyer, Vitaliy); Jugovac, M (Jugovac, Matteo); Zamborlini, G (Zamborlini, Giovanni); Schneider, CM (Schneider, Claus M.); Waser, R (Waser, Rainer); Kim, M (Kim, Miyoung); Jung, CU (Jung, Chang Uk); Dittmann, R (Dittmann, Regina)

Source: ADVANCED MATERIALS **Volume:** 31 **Issue:** 40 **Article Number:** 1903391 **DOI:** 10.1002/adma.201903391 **Early Access Date:** AUG 2019 **Published:** OCT 2019

Accession Number: WOS:000483160600001

PubMed ID: 31441160

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Jugovac, Matteo	CAJ-5517-2022	0000-0001-9525-3980
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Schneider, Claus	H-7453-2012	0000-0002-3920-6255

Baeumer, Christoph	AHA-1151-2022	
Waser, Rainer	J-6103-2013	0000-0002-9080-8980
Nallagatla, Venkata Raveendra		0000-0002-4454-2819
Feyer, Vitaliy		0000-0002-7104-5420
Baeumer, Christoph		0000-0003-0008-514X

ISSN: 0935-9648

eISSN: 1521-4095

Title: Elucidating the Full Potential of OPV Materials Utilizing a High-Throughput Robot-Based Platform and Machine Learning

Author(s): Du, XY (Du, Xiaoyan); Luer, L (Lueer, Larry); Heumueller, T (Heumueller, Thomas); Wagner, J (Wagner, Jerrit); Berger, C (Berger, Christian); Osterrieder, T (Osterrieder, Tobias); Wortmann, J (Wortmann, Jonas); Langner, S (Langner, Stefan); Vongsaysy, U (Vongsaysy, Uyxing); Bertrand, M (Bertrand, Melanie); Li, N (Li, Ning); Stubhan, T (Stubhan, Tobias); Hauch, J (Hauch, Jens); Brabec, CJ (Brabec, Christoph J.)

Source: JOULE **Volume:** 5 **Issue:** 2 **Pages:** 495-506 **DOI:** 10.1016/j.joule.2020.12.013 **Published:** FEB 17 2021

Accession Number: WOS:000629204800018

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Li, Ning	AAF-2901-2019	0000-0003-1208-4638
Brabec, Christoph J.	N-1897-2013	0000-0002-9440-0253

ISSN: 2542-4351

Title: Impact of Pressure on the Resonant Bonding in Chalcogenides

Author(s): Xu, M (Xu, Ming); Jakobs, S (Jakobs, Stefan); Mazzarello, R (Mazzarello, Riccardo); Cho, JY (Cho, Ju-Young); Yang, Z (Yang, Zhe); Hollermann, H (Hollermann, Henning); Shang, DS (Shang, Dashan); Miao, XS (Miao, Xiangshui); Yu, ZH (Yu, Zhenhai); Wang, L (Wang, Lin); Wuttig, M (Wuttig, Matthias)

Source: JOURNAL OF PHYSICAL CHEMISTRY C **Volume:** 121 **Issue:** 45 **Pages:** 25447-25454 **DOI:** 10.1021/acs.jpcc.7b07546 **Published:** NOV 16 2017

Accession Number: WOS:000416202900059

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Hollermann, Henning	T-4407-2017	0000-0003-4992-7037
Wang, Lin	N-4161-2017	
Miao, Xiangshui	B-3892-2019	
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Shang, Da-Shan	F-2810-2010	0000-0003-3573-8390
Xu, Meng	HJY-7139-2023	
Xu, Ming	E-2188-2015	0000-0002-2730-283X

ISSN: 1932-7447

Title: Tuning electrochemically driven surface transformation in atomically flat LaNiO₃ thin films for enhanced water electrolysis

Author(s): Baeumer, C (Baeumer, Christoph); Li, J (Li, Jiang); Lu, QY (Lu, Qiyang); Liang, AYL (Liang, Allen Yu-Lun); Jin, L (Jin, Lei); Martins, HP (Martins, Henrique Perin); Duchon, T (Duchon, Tomas); Gloss, M (Gloss, Maria); Gericke, SM (Gericke, Sabrina M.); Wohlgemuth, MA (Wohlgemuth, Marcus A.); Giesen, M (Giesen, Margret); Penn, EE (Penn, Emily E.); Dittmann, R (Dittmann, Regina); Gunkel, F (Gunkel, Felix); Waser, R (Waser, Rainer); Bajdich, M (Bajdich, Michal); Nemsak, S (Nemsak, Slavomir); Mefford, JT (Mefford, J. Tyler); Chueh, WLC (Chueh, William C.)

Source: NATURE MATERIALS **Volume:** 20 **Issue:** 5 **Pages:** 674-+ **DOI:** 10.1038/s41563-020-00877-1 **Early Access Date:** JAN 2021 **Published:** MAY 2021

Accession Number: WOS:000607023400007

PubMed ID: 33432142

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Jin, Lei	D-2404-2010	0000-0001-6924-2364
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Bajdich, Michal		0000-0003-1168-8616
Mefford, Tyler		0000-0003-4965-4147
Giesen, Margret		0000-0002-7656-887X

ISSN: 1476-1122

eISSN: 1476-4660

Title: Functional Modifications Induced via X-ray Nanopatterning in TiO₂ Rutile Single Crystals

Author(s): Alessio, A (Alessio, Andrea); Bonino, V (Bonino, Valentina); Heisig, T (Heisig, Thomas); Picollo, F (Picollo, Federico); Torsello, D (Torsello, Daniele); Mino, L (Mino, Lorenzo); Martinez-Criado, G (Martinez-Criado, Gema); Dittmann, R (Dittmann, Regina); Truccato, M (Truccato, Marco)

Source: PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS **Volume:** 15 **Issue:** 10 **Article Number:** 2100409 **DOI:** 10.1002/pssr.202100409 **Early Access Date:** SEP 2021 **Published:** OCT 2021

Accession Number: WOS:000695798200001

Author Identifiers:

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Dittmann, Regina	J-9458-2013	0000-0003-1886-1864
Martinez-Criado, Gema	C-6624-2014	0000-0002-4503-9385
Truccato, Marco	J-2459-2012	0000-0003-1564-221X
Bonino, Valentina		0000-0002-3616-5494
Picollo, Federico	A-2675-2010	0000-0003-3179-271X

ISSN: 1862-6254

eISSN: 1862-6270

Title: Controlling the crystallization dynamics of photovoltaic perovskite layers on larger-area coatings

Author(s): Zeng, LX (Zeng, Linxiang); Chen, S (Chen, Shi); Forberich, K (Forberich, Karen); Brabec, CJ (Brabec, Christoph J.); Mai, YH (Mai, Yaohua); Guo, F (Guo, Fei)

Source: ENERGY & ENVIRONMENTAL SCIENCE **Volume:** 13 **Issue:** 12 **Pages:** 4666-4690 **DOI:**

10.1039/d0ee02575e **Published:** DEC 1 2020

Accession Number: WOS:000599751100009

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Brabec, Christoph J.	N-1897-2013	0000-0002-9440-0253

ISSN: 1754-5692

eISSN: 1754-5706

Title: Nb-Mediated Grain Growth and Grain-Boundary Engineering in Mg₃Sb₂-Based Thermoelectric Materials

Author(s): Luo, T (Luo, Ting); Kuo, JJ (Kuo, Jimmy J.); Griffith, KJ (Griffith, Kent J.); Imasato, K (Imasato, Kazuki); Cojocar-Miredin, O (Cojocar-Miredin, Oana); Wuttig, M (Wuttig, Matthias); Gault, B (Gault, Baptiste); Yu, Y (Yu, Yuan); Snyder, GJ (Snyder, G. Jeffrey)

Source: ADVANCED FUNCTIONAL MATERIALS **Volume:** 31 **Issue:** 28 **Article Number:** 2100258 **DOI:** 10.1002/adfm.202100258 **Early Access Date:** MAY 2021 **Published:** JUL 2021

Accession Number: WOS:000647542400001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Snyder, G. Jeffrey	E-4453-2011	0000-0003-1414-8682
Yu, Yuan	AAP-1901-2020	0000-0002-3148-6600
Gault, Baptiste		0000-0002-4934-0458
Wuttig, Matthias		0000-0003-1498-1025

ISSN: 1616-301X

eISSN: 1616-3028

Title: Tuning the surface structure and conductivity of niobium-doped rutile TiO₂ single crystals via thermal reduction

Author(s): Wrana, D (Wrana, D.); Rodenbuecher, C (Rodenbuecher, C.); Krawiec, M (Krawiec, M.); Jany, BR (Jany, B. R.); Rysz, J (Rysz, J.); Ermrich, M (Ermrich, M.); Szot, K (Szot, K.); Krok, F (Krok, F.)

Source: PHYSICAL CHEMISTRY CHEMICAL PHYSICS **Volume:** 19 **Issue:** 45 **Pages:** 30339-30350 **DOI:** 10.1039/c7cp03136j **Published:** DEC 7 2017

Accession Number: WOS:000416054400005

PubMed ID: 28936525

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Jany, Benedykt R.	H-5186-2016	0000-0002-3196-7244
Rodenbücher, Christian	K-5460-2013	0000-0001-8029-3066
Wrana, Dominik	AAH-6467-2021	0000-0002-8239-0043
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Krawiec, Mariusz		0000-0002-8752-4928
Szot, Kristof	K-5441-2013	0000-0001-8773-2754

ISSN: 1463-9076

eISSN: 1463-9084

Title: Incipient Metals: Functional Materials with a Unique Bonding Mechanism

Author(s): Wuttig, M (Wuttig, Matthias); Deringer, VL (Deringer, Volker L.); Gonze, X (Gonze, Xavier); Bichara, C (Bichara, Christophe); Raty, JY (Raty, Jean-Yves)

Source: ADVANCED MATERIALS **Volume:** 30 **Issue:** 51 **Article Number:** 1803777 **DOI:** 10.1002/adma.201803777 **Published:** DEC 2018

Accession Number: WOS:000453926000029

PubMed ID: 30318844

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Author	Web of Science ResearcherID	ORCID Number
Wuttig, Matthias	A-8860-2012	0000-0003-1498-1025
Deringer, Volker		0000-0001-6873-0278
Bichara, Christophe		0000-0003-4075-4563

ISSN: 0935-9648

eISSN: 1521-4095

Title: Field-Driven Hopping Transport of Oxygen Vacancies in Memristive Oxide Switches with Interface-Mediated Resistive Switching

Author(s): Du, N (Du, Nan); Manjunath, N (Manjunath, Niveditha); Li, Y (Li, Yuan); Menzel, S (Menzel, Stephan); Linn, E (Linn, Eike); Waser, R (Waser, Rainer); You, TG (You, Tianguai); Burger, D (Burger, Danilo); Skorupa, I (Skorupa, Ilona); Walczyk, D (Walczyk, Damian); Walczyk, C (Walczyk, Christian); Schmidt, OG (Schmidt, Oliver G.); Schmidt, H (Schmidt, Heidemarie)

Source: PHYSICAL REVIEW APPLIED **Volume:** 10 **Issue:** 5 **Article Number:** 054025 **DOI:** 10.1103/PhysRevApplied.10.054025 **Published:** NOV 9 2018

Accession Number: WOS:000449792500003

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Schmidt, Oliver G	W-4877-2019	
Du, Nan		0000-0002-7775-7795
Schmidt, Oliver G		0000-0001-9503-8367

ISSN: 2331-7019

Title: Application of the Quantum-Point-Contact Formalism to Model the Filamentary Conduction in Ta2O5-Based Resistive Switching Devices

Author(s): Andrade, JMM (Andrade, Jaime M. M.); Rosario, CMM (Rosario, Carlos M. M.); Menzel, S (Menzel, Stephan); Waser, R (Waser, Rainer); Sobolev, NA (Sobolev, Nikolai A.)

Source: PHYSICAL REVIEW APPLIED **Volume:** 17 **Issue:** 3 **Article Number:** 034062 **DOI:** 10.1103/PhysRevApplied.17.034062 **Published:** MAR 25 2022

Accession Number: WOS:000783556500001

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Menzel, Stephan	J-7725-2013	0000-0002-4258-2673
Sobolev, Nikolai	B-2325-2008	0000-0002-9420-8130
Rosario, Carlos		0000-0002-3285-2027

ISSN: 2331-7019



Title: Quantifying the Energy Losses in CsPbI₂Br Perovskite Solar Cells with an Open-Circuit Voltage of up to 1.45 V

Author(s): Tian, JJ (Tian, Jingjing); Zhang, KC (Zhang, Kaicheng); Xie, ZQ (Xie, Zhiqiang); Peng, ZJ (Peng, Zijian); Zhang, JY (Zhang, Jiyun); Osvet, A (Osvet, Andres); Luer, L (Luer, Larry); Kirchartz, T (Kirchartz, Thomas); Rau, U (Rau, Uwe); Li, N (Li, Ning); Brabec, CJ (Brabec, Christoph J.)

Source: ACS ENERGY LETTERS **Volume:** 7 **Issue:** 11 **Pages:** 4071-4080 **DOI:** 10.1021/acseenergylett.2c01883 **Published:** NOV 11 2022

Accession Number: WOS:000898398900001

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Author	Web of Science ResearcherID	ORCID Number
Li, Ning	AAF-2901-2019	0000-0003-1208-4638
Zhang, Jiyun	HNS-5562-2023	0000-0001-6939-4771

ISSN: 2380-8195

Title: Metavalent Bonding in Crystalline Solids: How Does It Collapse?

Author(s): Guarneri, L (Guarneri, Ludovica); Jakobs, S (Jakobs, Stefan); von Hoegen, A (von Hoegen, Alexander); Maier, S (Maier, Stefan); Xu, M (Xu, Ming); Zhu, M (Zhu, Min); Wahl, S (Wahl, Sophia); Teichrib, C (Teichrib, Christian); Zhou, YM (Zhou, Yiming); Cojocaru-Miredin, O (Cojocaru-Miredin, Oana); Raghuwanshi, M (Raghuwanshi, Mohit); Schoen, CF (Schoen, Carl-Friedrich); Droegeler, M (Droegeler, Marc); Stampfer, C (Stampfer, Christoph); Lobo, RPSM (Lobo, Ricardo P. S. M.); Piarristeguy, A (Piarristeguy, Andrea); Pradel, A (Pradel, Annie); Raty, JY (Raty, Jean-Yves); Wuttig, M (Wuttig, Matthias)

Source: ADVANCED MATERIALS **Volume:** 33 **Issue:** 39 **Article Number:** 2102356 **DOI:** 10.1002/adma.202102356 **Early Access Date:** AUG 2021 **Published:** OCT 2021

Accession Number: WOS:000681607600001

PubMed ID: 34355435

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Xu, Ming	ABH-4095-2020	0000-0002-2730-283X
Raghuwanshi, Mohit		0000-0003-4352-072X

ISSN: 0935-9648

eISSN: 1521-4095

Title: Quantifying the Absorption Onset in the Quantum Efficiency of Emerging Photovoltaic Devices

Author(s): Almora, O (Almora, Osbel); Cabrera, CI (Cabrera, Carlos I.); Garcia-Cerrillo, J (Garcia-Cerrillo, Jose); Kirchartz, T (Kirchartz, Thomas); Rau, U (Rau, Uwe); Brabec, CJ (Brabec, Christoph J.)

Source: ADVANCED ENERGY MATERIALS **Volume:** 11 **Issue:** 16 **Article Number:** 2100022 **DOI:** 10.1002/aenm.202100022 **Early Access Date:** MAR 2021 **Published:** APR 2021

Accession Number: WOS:000625673700001

Author Identifiers:

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Institute, Zernike	W-7033-2019	
Brabec, Christoph J.	N-1897-2013	0000-0002-9440-0253
Cabrera, Carlos I.		0000-0003-1699-695X
Garcia Cerrillo, Jose		0000-0002-7922-6824
Rau, Uwe	G-2256-2011	0000-0003-3526-3081

ISSN: 1614-6832

eISSN: 1614-6840

Title: Robot-Based High-Throughput Screening of Antisolvents for Lead Halide Perovskites

Author(s): Gu, EN (Gu, Ening); Tang, XF (Tang, Xiaofeng); Langner, S (Langner, Stefan); Duchstein, P (Duchstein, Patrick); Zhao, YC (Zhao, Yicheng); Levchuk, I (Levchuk, Ievgen); Kalancha, V (Kalancha, Violetta); Stubhan, T (Stubhan, Tobias); Hauch, J (Hauch, Jens); Egelhaaf, HJ (Egelhaaf, Hans Joachim); Zahn, D (Zahn, Dirk); Osvet, A (Osvet, Andres); Brabec, CJ (Brabec, Christoph J.)

Source: JOULE **Volume:** 4 **Issue:** 8 **Pages:** 1806-1822 **DOI:** 10.1016/j.joule.2020.06.013 **Published:** AUG 19 2020

Accession Number: WOS:000561454400020

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
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Brabec, Christoph J.	N-1897-2013	0000-0002-9440-0253
Duchstein, Patrick	H-3243-2017	0000-0002-9925-8639
Langner, Stefan	ABA-6452-2020	
Zahn, Dirk		0000-0002-4303-3422

ISSN: 2542-4351

Title: Phase-change heterostructure enables ultralow noise and drift for memory operation

Author(s): Ding, KY (Ding, Keyuan); Wang, JJ (Wang, Jiangjing); Zhou, YX (Zhou, Yuxing); Tian, H (Tian, He); Lu, L (Lu, Lu); Mazzarello, R (Mazzarello, Riccardo); Jia, CL (Jia, Chunlin); Zhang, W (Zhang, Wei); Rao, F (Rao, Feng); Ma, E (Ma, Evan)

Source: SCIENCE **Volume:** 366 **Issue:** 6462 **Pages:** 210-+ **DOI:** 10.1126/science.aay0291 **Published:** OCT 11 2019

Accession Number: WOS:000490014700037

PubMed ID: 31439757

Author Identifiers:

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Zhang, Wei	P-3546-2019	
Wang, Jiangjing	AAD-2136-2021	0000-0001-7327-8159
Zhou, Yuxing	AAA-3958-2020	0000-0001-8061-3867
Mazzarello, Riccardo	G-4502-2014	0000-0003-2319-375X
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ISSN: 0036-8075

eISSN: 1095-9203

Title: Degradation through Directional Self-Doping and Homogeneous Density of Recombination Centers Hindered by 1,8-Diiodooctane Additive in Non-Fullerene Organic Solar Cells

Author(s): Almora, O (Almora, Osbel); Wiegand, J (Wiegand, Julius); Lopez-Varo, P (Lopez-Varo, Pilar); Matt, GJ (Matt, Gebhard J.); Brabec, CJ (Brabec, Christoph J.)

Source: SOLAR RRL **Volume:** 5 **Issue:** 4 **Article Number:** 2100024 **DOI:** 10.1002/solr.202100024 **Early**

Access Date: MAR 2021 **Published:** APR 2021

Accession Number: WOS:000623214000001

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Title: Boosting Photoelectrochemical Water Oxidation of Hematite in Acidic Electrolytes by Surface State Modification

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Title: Device Performance of Emerging Photovoltaic Materials (Version 1)

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Title: Beyond Ternary OPV: High-Throughput Experimentation and Self-Driving Laboratories Optimize Multicomponent Systems

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