

Christophe J Muller

List of Publications by Year in descending order

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304743

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91
all docs

91
docs citations

91
times ranked

1873
citing authors

#	ARTICLE	IF	CITATIONS
1	Ge-doped GaSb thin films with zero mass density change upon crystallization for applications in phase change memories. Applied Physics Letters, 2016, 108, .	3.3	39
2	Nanostructural defects evidenced in failing silicon-based NMOS capacitors by advanced failure analysis techniques. EPJ Applied Physics, 2014, 66, 10103.	0.7	0
3	(Invited) Temperature Impact on Reliability and Manufacturing of Embedded HfOx-Based RRAM: a Novel Pre-coding Method for Bypassing Soldering Reflow. ECS Transactions, 2014, 61, 311-313.	0.5	0
4	Robust Compact Model for Bipolar Oxide-Based Resistive Switching Memories. IEEE Transactions on Electron Devices, 2014, 61, 674-681.	3.0	101
5	Synchronous Non-Volatile Logic Gate Design Based on Resistive Switching Memories. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 443-454.	5.4	90
6	Compact Modeling Solutions for Oxide-Based Resistive Switching Memories (OxRAM). Journal of Low Power Electronics and Applications, 2014, 4, 1-14.	2.0	27
7	Density change upon crystallization of Ga-Sb films. Applied Physics Letters, 2014, 105, 181910.	3.3	17
8	Design and analysis of crossbar architecture based on complementary resistive switching non-volatile memory cells. Journal of Parallel and Distributed Computing, 2014, 74, 2484-2496.	4.1	14
9	Analytical study of complementary memristive synchronous logic gates. , 2013, , .		3
10	A CBRAM-based compact interconnect switch for non-volatile reconfigurable logic circuits. , 2013, , .		1
11	Ge2Sb2Te5 layer used as solid electrolyte in conductive-bridge memory devices fabricated on flexible substrate. Solid-State Electronics, 2013, 79, 159-165.	1.4	26
12	A novel test structure for OxRRAM process variability evaluation. Microelectronics Reliability, 2013, 53, 1208-1212.	1.7	4
13	Operation and stability analysis of bipolar OxRRAM-based Non-Volatile 8T2R SRAM as solution for information back-up. Solid-State Electronics, 2013, 90, 99-106.	1.4	4
14	Combined in situ x-ray scattering and electrical measurements for characterizing phase transformations in nanometric functional films. Thin Solid Films, 2013, 541, 21-27.	1.8	11
15	Role of Ti and Pt electrodes on resistance switching variability of HfO2-based Resistive Random Access Memory. Thin Solid Films, 2013, 533, 19-23.	1.8	32
16	A hybrid CBRAM/CMOS Look-Up-Table structure for improving performance efficiency of Field-Programmable-Gate-Array. , 2013, , .		2
17	Synchronous full-adder based on complementary resistive switching memory cells. , 2013, , .		3
18	Compact modeling solutions for OxRAM memories. , 2013, , .		14

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19	Unusual crystallization behavior in Ga-Sb phase change alloys. APL Materials, 2013, 1, .	5.1	25
20	Phase transition in stoichiometric GaSb thin films: Anomalous density change and phase segregation. Applied Physics Letters, 2013, 103, .	3.3	24
21	Extraction of physical parameters on silicon nanocrystals devoted to non-volatile memories. , 2012, , .		1
22	Low-power resistive switching in Au/NiO/Au nanowire arrays. Applied Physics Letters, 2012, 101, .	3.3	23
23	Bipolar ReRAM Based non-volatile flip-flops for low-power architectures. , 2012, , .		37
24	Switching of nanosized filaments in NiO by conductive atomic force microscopy. Journal of Applied Physics, 2012, 112, .	2.5	37
25	Emerging Memory Concepts. , 2012, , 339-364.		1
26	Non-Volatile Flip-Flop Based on Unipolar ReRAM for Power-Down Applications. Journal of Low Power Electronics, 2012, 8, 1-10.	0.6	17
27	Bipolar OxRRAM memory array reliability evaluation based on fault injection. , 2011, , .		17
28	Using OxRRAM memories for improving communications of reconfigurable FPGA architectures. , 2011, , .		11
29	Design challenges for prototypical and emerging memory concepts relying on resistance switching. , 2011, , .		3
30	Evaluation of OxRAM cell variability impact on memory performances through electrical simulations. , 2011, , .		23
31	Experimental and theoretical study of electrode effects in HfO ₂ /HfO ₂ based RRAM. , 2011, , .		44
32	Evidence for correlated structural and electrical changes in a Ge ₂ Sb ₂ Te ₅ thin film from combined synchrotron X-ray techniques and sheet resistance measurements during <i>in situ</i> thermal annealing. Journal of Applied Crystallography, 2011, 44, 858-864.	4.5	13
33	Accurate analysis of parasitic current overshoot during forming operation in RRAMs. Microelectronic Engineering, 2011, 88, 1129-1132.	2.4	29
34	Resistance change in memory structures integrating CuTCNQ nanowires grown on dedicated HfO ₂ switching layer. Solid-State Electronics, 2011, 56, 168-174.	1.4	10
35	Resistive switching characteristics of NiO films deposited on top of W or Cu pillar bottom electrodes. Thin Solid Films, 2011, 519, 3798-3803.	1.8	10
36	Direct Observation at Nanoscale of Resistance Switching in NiO Layers by Conductive-Atomic Force Microscopy. Applied Physics Express, 2011, 4, 051101.	2.4	15

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37	Growth and In-line Characterization of Silicon Nanodots Integrated in Discrete Charge Trapping Non-volatile Memories. Materials Research Society Symposia Proceedings, 2011, 1337, 35.	0.1	1
38	Self-consistent physical modeling of set/reset operations in unipolar resistive-switching memories. Applied Physics Letters, 2011, 98, .	3.3	57
39	Solution growth of metal-organic complex CuTCNQ in small dimension interconnect structures. Journal of Crystal Growth, 2010, 312, 3267-3275.	1.5	2
40	Interface Study of SiO ₂ / HfO ₂ /SiO ₂ Stacks Used as InterPoly Dielectric for Future Generations of Embedded Flash Memories. Materials Research Society Symposia Proceedings, 2010, 1252, 8.	0.1	0
41	Electrical nanocharacterization of copper tetracyanoquinodimethane layers dedicated to resistive random access memories. Applied Physics Letters, 2010, 96, 263504.	3.3	19
42	Study of Ferroelectric Bi _{3.25} La _{0.75} Ti ₃ O ₁₂ Thin Films Deposited by Sol-Gel Method. Ferroelectrics, 2010, 397, 112-121.	0.6	2
43	Coexistence of the bipolar and unipolar resistive-switching modes in NiO cells made by thermal oxidation of Ni layers. Journal of Applied Physics, 2010, 107, .	2.5	170
44	Design and Test Challenges in Resistive Switching RAM (ReRAM): An Electrical Model for Defect Injections. , 2009, , .		22
45	Reliability of NiO-Based Resistive Switching Memory (ReRAM) Elements with Pillar W Bottom Electrode. , 2009, , .		8
46	On the Bipolar and Unipolar Switching Mechanisms Observed in NiO Memory Cells Made by Thermal Oxidation of Ni. , 2009, , .		4
47	Oxidation kinetics of Ni metallic films: Formation of NiO-based resistive switching structures. Thin Solid Films, 2008, 516, 4083-4092.	1.8	42
48	Phase transitions in functional thin films. Phase Transitions, 2008, 81, 603-606.	1.3	1
49	Catalytic Studies of RuO ₂ Films Deposited on Ferroelectrics Films by Spin Coating Process. Ferroelectrics, 2008, 371, 34-42.	0.6	1
50	Integration of resistive switching NiO in small via structures from localized oxidation of nickel metallic layer. , 2008, , .		5
51	From micrometric to nanometric scale switching of CuTCNQ-based non-volatile memory structures. , 2008, , .		2
52	Enhanced oxidation of TiAlN barriers integrated in three-dimensional ferroelectric capacitor structures. Journal of Applied Physics, 2007, 101, 014908.	2.5	3
53	Catalytic behaviors of ruthenium dioxide films deposited on ferroelectrics substrates, by spin coating process. Applied Surface Science, 2007, 254, 1399-1404.	6.1	4
54	Microstructure and resistance switching in NiO binary oxide films obtained from Ni oxidation. , 2006, , .		2

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55	Reliability of three-dimensional ferroelectric capacitor memory-like arrays simultaneously submitted to x-rays and electrical stresses. , 2006, , .		4
56	Metal-Organic Chemical Vapor Deposition of Ferroelectric SrBi ₂ Ta ₂ O ₉ Films from a Fluorine-Containing Precursor System. Chemistry of Materials, 2006, 18, 1016-1022.	6.7	11
57	Microstructural analysis of integrated pin-shaped two-dimensional and three-dimensional ferroelectric capacitors from micro-focused synchrotron X-ray techniques. Journal of Applied Crystallography, 2006, 39, 376-384.	4.5	4
58	Kinetics of polarization reversal in irradiated thin PZT films. Physics of the Solid State, 2006, 48, 1174-1176.	0.6	0
59	Effect of Penetrating Irradiation on Polarization Reversal in PZT Thin Films. Ferroelectrics, 2006, 340, 161-167.	0.6	3
60	Nondestructive microstructural diagnostic of integrated ferroelectric capacitor arrays: Correlation with electrical characteristics. Journal of Applied Physics, 2006, 99, 054504.	2.5	0
61	Radiation effects on switching kinetics of three-dimensional ferroelectric capacitor arrays. Applied Physics Letters, 2006, 89, 113501.	3.3	9
62	A Highly Reliable 3-D Integrated SBT Ferroelectric Capacitor Enabling FeRAM Scaling. IEEE Transactions on Electron Devices, 2005, 52, 447-453.	3.0	31
63	Influence of irradiation on the switching behavior in PZT thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 120, 141-145.	3.5	18
64	In situsynchrotron x-ray diffraction study of electrical field induced fatigue in Pt/PbZr _{0.45} Ti _{0.55} O ₃ /Pt ferroelectric capacitors. Journal of Physics Condensed Matter, 2005, 17, 7681-7688.	1.8	5
65	Sidewalls contribution in integrated three-dimensional Sr _{0.8} Bi _{2.2} Ta ₂ O ₉ -based ferroelectric capacitors. Applied Physics Letters, 2005, 87, 073502.	3.3	14
66	Degradation and recovery of polarization under synchrotron x rays in SrBi ₂ Ta ₂ O ₉ ferroelectric capacitors. Journal of Applied Physics, 2005, 97, 044106.	2.5	22
67	Composition control and ferroelectric properties of sidewalls in integrated three-dimensional SrBi ₂ Ta ₂ O ₉ -based ferroelectric capacitors. Journal of Applied Physics, 2005, 98, 054507.	2.5	13
68	Polarization fatigue in PbZr _{0.45} Ti _{0.55} O ₃ -based capacitors studied from high resolution synchrotron x-ray diffraction. Journal of Applied Physics, 2005, 97, 064108.	2.5	38
69	Evolution in Time of a Gold~Zirconia Nanopowder at Room Temperature:~Nucleation Growth of Gold Nanoparticles. Chemistry of Materials, 2005, 17, 5920-5927.	6.7	2
70	Failure Analysis of FeCAPs. Electrical Behaviour Under Synchrotron X-Ray Irradiation. Integrated Ferroelectrics, 2004, 61, 89-95.	0.7	3
71	Structural study of ferroelectric and paraelectric phases in PbK ₂ LiNb ₅ O ₁₅ . Physica Status Solidi (B): Basic Research, 2004, 241, 2629-2638.	1.5	7
72	Study of the nanostructuring of ZrAu alloy near the ambient temperature by X-ray diffraction and thermal analyses. Journal of Alloys and Compounds, 2004, 373, 96-103.	5.5	1

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73	Cationic disorder, microstructure and dielectric response of ferroelectric SBT ceramics. Journal of Applied Crystallography, 2003, 36, 880-889.	4.5	21
74	Diffraction des neutrons : principe, dispositifs expérimentaux et applications. European Physical Journal Special Topics, 2003, 103, 101-132.	0.2	2
75	Magnetic-field-induced orientation in Co-doped SrBi ₂ Ta ₂ O ₉ ferroelectric oxide. Journal of Physics Condensed Matter, 2002, 14, 11849-11857.	1.8	8
76	Structural and Electrical Properties of the Ferroelectric PbK ₂ LiNb ₅ O ₁₅ . Ferroelectrics, 2002, 268, 417-422.	0.6	0
77	Temperature dependent X-ray and neutron diffraction study of the liquid–solid and solid–solid equilibria in the Al _{29.2} Ga ₂₇ Zn _{43.8} ternary alloy. Journal of Alloys and Compounds, 2001, 316, 179-188.	5.5	4
78	Structural Disorder and Ionic Conductivity in LiVO ₃ : A Neutron Powder Diffraction Study from 340 to 890 K. Journal of Solid State Chemistry, 2001, 156, 379-389.	2.9	20
79	Title is missing!. Journal of Materials Science: Materials in Electronics, 2001, 12, 543-550.	2.2	14
80	Title is missing!. Journal of Superconductivity and Novel Magnetism, 2001, 14, 235-244.	0.5	4
81	Ferroelectric-paraelectric phase transition in PbHf _{0.2} Ti _{0.8} O ₃ studied by neutron powder diffraction. Journal of Physics Condensed Matter, 2001, 13, 6453-6470.	1.8	8
82	Structural investigation of temperature-induced phase transitions in HfV ₂ O ₇ . EPJ Applied Physics, 2000, 10, 15-27.	0.7	22
83	Octahedral deformations and cationic displacements in the ferroelectric PbHf _{0.8} Ti _{0.2} O ₃ : a neutron powder diffraction study from 10 to 770 K. Acta Crystallographica Section B: Structural Science, 2000, 56, 27-38.	1.8	18
84	Sr-doped PbZr _{1-x} Ti _x O ₃ ceramic: structural study and field-induced reorientation of ferroelectric domains. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 75, 43-52.	3.5	61
85	Neutron diffraction study of the relaxor-ferroelectric phase transition in disordered Pb(Sc _{1/2} Nb _{1/2})O ₃ . Journal of Physics Condensed Matter, 2000, 12, 7523-7539.	1.8	57
86	Temperature-dependent neutron powder diffraction evidence for splitting of the cationic sites in ferroelectric PbHf _{0.4} Ti _{0.6} O ₃ . Acta Crystallographica Section B: Structural Science, 1999, 55, 8-16.	1.8	30
87	Structural Studies of the Fast Oxygen Ion Conductor BICOVOX.15 by Single-Crystal Neutron Diffraction at Room Temperature. Journal of Solid State Chemistry, 1998, 141, 241-247.	2.9	18
88	Lattice vibrations and order–disorder transition in the oxide anion conductor BICOVOX.15: a neutron thermodiffraction study. Solid State Ionics, 1998, 111, 27-36.	2.7	23
89	Pressure and magnetic field effects on the crystallographic texture and electrical conductivity of the compound. Journal Physics D: Applied Physics, 1996, 29, 3106-3112.	2.8	17
90	BICOVOX family of oxide anion conductors: chemical, electrical and structural studies. Journal of Materials Chemistry, 1995, 5, 1395.	6.7	48