Brice Gautier

List of Publications by Year
in descending order

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82	1,103	393982 19	454577 30
papers	citations	h-index	g-index

82	82	82	1528
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanical Switching of Ferroelectric Domains in 33â€200 nmâ€Thick Solâ€Gelâ€Grown PbZr_{0.2}Ti_{0.8}O₃ Films Assisted by Nanocavities. Advanced Electronic Materials, 2022, 8, .	2.6	4
2	Ionic migrations during poling process in lanthanum aluminate investigated by time of flight-secondary ions mass spectrometry and piezoresponse force microscopy combined methodology. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 034002.	0.6	0
3	Characterizing Ferroelectricity with an Atomic Force Microscopy: An All-Around Technique. Nanoscience and Technology, 2019, , 173-203.	1.5	1
4	Combined ToF-SIMS and AFM protocol for accurate 3D chemical analysis and data visualization. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	0.6	5
5	Accurate Measurement at the Nanoscale of Remnant Polarisation Charge in Ferroelectric Films. , 2018, , .		0
6	Iterative deconvolution using the MRI model for removing experimental broadening and shift effects in SIMS depth profiles. Surface and Interface Analysis, 2018, 50, 1336-1342.	0.8	2
7	Effect of LiNbO₃polarity on the structural, optical and acoustic properties of epitaxial ZnO and Mg_{<i>x</i>}Zn_{1â"<i>x</i>}O films. Journal Physics D: Applied Physics, 2018, 51, 484003.	1.3	3
8	Quantitative and simultaneous analysis of the polarity of polycrystalline ZnO seed layers and related nanowires grown by wet chemical deposition. Nanotechnology, 2017, 28, 095704.	1.3	11
9	A new technique based on current measurement for nanoscale ferroelectricity assessment: Nano-positive up negative down. Review of Scientific Instruments, 2017, 88, 023901.	0.6	28
10	Investigation of tip-depletion-induced fail in scanning capacitance microscopy for the determination of carrier type. Ultramicroscopy, 2017, 174, 46-49.	0.8	5
11	Electrical properties of Molecular Beam Epitaxy grown Barium Titanate probed by conductive Atomic Force Microscopy. Thin Solid Films, 2017, 642, 324-327.	0.8	0
12	Interpretation of multiscale characterization techniques to assess ferroelectricity: The case of GaFeO3. Ultramicroscopy, 2017, 172, 47-51.	0.8	12
13	Geometric conductive filament confinement by nanotips for resistive switching of HfO2-RRAM devices with high performance. Scientific Reports, 2016, 6, 25757.	1.6	62
14	Surface atomic and chemical structure of relaxor Sr0.63Ba0.37Nb2O6(001). Applied Physics Letters, 2015, 106, 242901.	1.5	3
15	Study and characterization of the irreversible transformation of electrically stressed planar Ti/TiOx/Ti junctions. Journal of Applied Physics, 2015, 118, 144502.	1.1	0
16	Nanoscale study of perovskite BiFeO3/spinel (Fe,Zn)3O4 co-deposited thin film by electrical scanning probe methods. Applied Surface Science, 2015, 351, 531-536.	3.1	7
17	Structural study and ferroelectricity of epitaxial BaTiO3 films on silicon grown by molecular beam epitaxy. Journal of Applied Physics, 2014, 116, .	1.1	20
18	Spurious phenomena occurring during current measurement on ultra-thin dielectric layers: From electro-thermal effects to surface damage. Journal of Applied Physics, 2014, 115, 134103.	1.1	3

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19	Phase transitions in [001]-oriented morphotropic PbZr0.52Ti0.48O3 thin film deposited onto SrTiO3-buffered Si substrate. Journal of Applied Physics, 2014, 115, .	1.1	12
20	Electromechanical response of amorphous LaAlO3 thin film probed by scanning probe microscopies. Applied Physics Letters, 2014, 105, .	1.5	25
21	Imaging by atomic force microscopy of the properties difference of the layers covering the facets created during SIMS analysis. Applied Surface Science, 2014, 308, 24-30.	3.1	0
22	Phase transition in ferroelectric Pb(Zr0.52Ti0.48)O3 epitaxial thin films. Thin Solid Films, 2014, 553, 85-88.	0.8	5
23	Epitaxial Growth of Ferroelectric Pb(Zr,Ti)O₃ Layers on GaAs. Materials Research Society Symposia Proceedings, 2014, 1675, 93-98.	0.1	1
24	Chemistry and structure of BaTiO3 ultra-thin films grown by different O2 plasma power. Chemical Physics Letters, 2014, 592, 206-210.	1.2	21
25	Structural observation of piezoelectric inhomogeneity in a mixed-orientation Na0.5Bi0.5TiO3 perovskite thin film. Applied Physics Letters, 2014, 105, .	1.5	7
26	Epitaxial inversion on ferromagnetic (Fe,Zn)3O4 /ferroelectric BiFeO3 core-shell nanodot arrays using three dimensional nano-seeding assembly. Journal of Applied Physics, 2013, 113, .	1.1	12
27	SIMS quantification of thick Si1â^’xGexfilms (0â€‰â‰¤â€‰xâ€‰â‰¤â€‰1) using the isotopic comparative method under Ar+beam. Surface and Interface Analysis, 2013, 45, 376-380.	0.8	4
28	Ferroelectric Pb(Zr,Ti)O3 epitaxial layers on GaAs. Applied Physics Letters, 2013, 103, .	1.5	23
29	Room temperature multiferroicity in Ga0.6Fe1.4O3:Mg thin films. Journal of Applied Physics, 2013, 113, .	1.1	32
30	Electrical properties of (110) epitaxial lead-free ferroelectric Na0.5Bi0.5TiO3 thin films grown by pulsed laser deposition: Macroscopic and nanoscale data. Journal of Applied Physics, 2012, 111, .	1.1	46
31	IMPACT OF THE AMBIENT HUMIDITY ON THE KINETICS OF FORMATION OF FERROELECTRIC DOMAINS IN MONOCRYSTALLINE LiTaO3. International Journal of Nanoscience, 2012, 11, 1240013.	0.4	2
32	Strain effect in PbTiO3/PbZr0.2Ti0.8O3 superlattices: From polydomain to monodomain structures. Journal of Applied Physics, 2012, 112, .	1.1	7
33	Chemistry and Atomic Distortion at the Surface of an Epitaxial BaTiO₃ Thin Film after Dissociative Adsorption of Water. Journal of Physical Chemistry C, 2012, 116, 21802-21809.	1.5	60
34	KTa0.65Nb0.35O3 thin films epitaxially grown by pulsed laser deposition on metallic and oxide epitaxial electrodes. Applied Surface Science, 2012, 258, 9297-9301.	3.1	5
35	Single crystal PZT thin film membrane with highly conductive electrodes. , 2012, , .		0
36	Pulsed laser deposition of epitaxial ferroelectric Pb(Zr,Ti)O3 films on silicon substrates. Thin Solid Films, 2012, 520, 4604-4607.	0.8	12

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37	Molecular beam epitaxy growth of BaTiO3 thin films and crucial impact of oxygen content conditions on the electrical characteristics. Thin Solid Films, 2012, 520, 4595-4599.	0.8	27
38	Epitaxial growth and electrical measurement of single crystalline Pb(Zr0.52Ti0.48)O3 thin film on Si(001) for micro-electromechanical systems. Thin Solid Films, 2012, 520, 4572-4575.	0.8	32
39	Integration of functional oxides on silicon for novel devices. , 2011, , .		0
40	Influence of the surrounding ambient on the reliability of the electrical characterization of thin oxide layers using an atomic force microscope. Microelectronics Reliability, 2011, 51, 2097-2101.	0.9	4
41	The isotopic comparative method (ICM) for SIMS quantification of boron in silicon up to 40 at.%. Surface and Interface Analysis, 2011, 43, 36-40.	0.8	5
42	Isotopic comparative method (ICM) for the determination of variations of the ion yields in boron-doped silicon as a function of oxygen concentration in the 0-10 at.% range. Surface and Interface Analysis, 2011, 43, 137-140.	0.8	3
43	Epitaxy of BaTiO3 thin film on Si(001) using a SrTiO3 buffer layer for non-volatile memory application. Microelectronic Engineering, 2011, 88, 1232-1235.	1.1	99
44	Ferroelectricity in a quasiamorphous ultrathin BaTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>film. Physical Review B, 2011, 84, .	1.1	17
45	Toward a better understanding of the nanoscale degradation mechanisms of ultra-thin SiO2/Si films: Investigation of the best experimental conditions with a conductive-atomic force microscope. Journal of Applied Physics, 2011, 110, .	1.1	4
46	Finite element method simulation of the domain growth kinetics in single-crystal LiTaO3: Role of surface conductivity. Journal of Applied Physics, 2011, 110, 052016.	1.1	24
47	Study of the physical and electrical degradation of thin oxide films by atomic force microscope. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 01AA06.	0.6	7
48	Abnormal switching of ferroelectric domains created by the tip of an atomic force microscope in a congruent LiTaO3 single-crystal thin film. Journal of Applied Physics, 2011, 110, 024102.	1.1	12
49	Influence of the ferroelectric polarization on the electronic structure of BaTiO₃ thin films. Surface and Interface Analysis, 2010, 42, 1690-1694.	0.8	17
50	Macroscopic and nanoscale electrical properties of pulsed laser deposited (100) epitaxial lead-free Na0.5Bi0.5TiO3 thin films. Journal of Applied Physics, 2010, 107, .	1.1	43
51	Low-temperature transition to a superconducting phase in boron-doped silicon films grown on (001)-oriented silicon wafers. Physical Review B, 2010, 81, .	1.1	34
52	The Superconducting Transition in Boron Doped Silicon Films. Acta Physica Polonica A, 2010, 118, 1026-1027.	0.2	0
53	Scaling Effects on Ferro-Electrics: Application in Nanoelectronics and Characterization. , 2009, , .		1
54	Nanoscale Characterization Of Ultra-Thin Dielectrics Using Scanning Capacitance Microscopy. , 2009, , .		1

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55	Nanoscale leakage current measurements in metal organic chemical vapor deposition crystalline SrTiO3 films. Thin Solid Films, 2009, 517, 1868-1873.	0.8	14
56	Interpretation of scanning capacitance microscopy for thin oxides characterization. Thin Solid Films, 2009, 517, 6721-6725.	0.8	6
57	Nanoscale Study of the Influence of Atomic Oxygen on the Electrical Properties of LaAlO3 Thin High-k Oxide Films Deposited by Molecular Beam Epitaxy. , 2009, , .		2
58	Quantitative SIMS measurement of high concentration of boron in silicon (up to 20at.%) using an isotopic comparative method. Applied Surface Science, 2008, 255, 1377-1380.	3.1	19
59	A new mechanicalâ€"electrical approach to the wheel-rail contact. Wear, 2008, 265, 1408-1416.	1.5	20
60	Silicon nanoparticle formation by short pulse electrochemical etching in the transition regime. Journal of Applied Physics, 2006, 100, 104307.	1.1	7
61	Deconvolution of very low primary energy SIMS depth profiles. Applied Surface Science, 2006, 252, 6478-6481.	3.1	13
62	AFM study of the SIMS beam induced roughness in monocrystalline silicon in presence of initial surface or bulk defects of nanometric size. Applied Surface Science, 2006, 252, 6448-6451.	3.1	5
63	Surface roughening and erosion rate change at low energy SIMS depth profiling of silicon during oblique bombardment. Applied Surface Science, 2006, 253, 2662-2670.	3.1	12
64	Comparison of scanning capacitance microscopy measurements in open and closed loop modes on highly doped silicon monolayers. Solid-State Electronics, 2006, 50, 1479-1482.	0.8	2
65	Nanoscale observation of the distribution of the polarization orientation of ferroelectric domains in lithium niobate thin films. Thin Solid Films, 2006, 515, 1592-1596.	0.8	17
66	Impact of introducing CuSiN self-aligned barriers in advanced copper interconnects. Microelectronic Engineering, 2005, 82, 587-593.	1.1	18
67	Initial stages of silicon anodization in the transition regime: Nanoparticle formation. Applied Physics Letters, 2005, 86, 213107.	1.5	7
68	Growth and nanoscale ferroelectric investigation of radiofrequency-sputtered LiNbO3 thin films. Materials Chemistry and Physics, 2004, 86, 340-346.	2.0	17
69	Imaging by atomic force microscopy of the electrical properties difference of the facets of oxygen-ion-induced ripple topography in silicon. Applied Surface Science, 2004, 231-232, 136-140.	3.1	15
70	Influence of surface orientation on the formation of sputtering-induced ripple topography in silicon. Applied Surface Science, 2004, 231-232, 678-683.	3.1	9
71	Nanoscale study of the ferroelectric properties of SrBi2Nb2O9 thin films grown by pulsed laser deposition on epitaxial Pt electrodes using atomic force microscope. Applied Surface Science, 2003, 217, 108-117.	3.1	25
72	Nanoscale Investigation of the Ferroelectric Properties of Sol-Gel (PbZr x Ti 1â^' x) O 3 Films. Ferroelectrics, 2002, 269, 219-224.	0.3	5

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73	Influence of the Microstructure and of an Ion Beam Etching on the Domain Propagation in PZT Thin Films. Integrated Ferroelectrics, 2002, 50, 231-240.	0.3	1
74	Electrochemical behaviour of ceramic solâ€“gel coatings on mild steel. Journal of Non-Crystalline Solids, 2001, 293-295, 527-533.	1.5	45
75	High-resolution inspections of ferroelectric thin PZT films. Annales De Chimie: Science Des Materiaux, 2001, 26, 145-149.	0.2	4
76	Er deposition in the submonolayer range on weakly boron-doped Si(111) surface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2239.	0.9	3
77	Scanning tunneling microscopy study of the Er/Ge(111) c(2Ã—8) interface. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 2738-2741.	0.9	2
78	Two-dimensional epitaxialErSi2grown on B-passivatedSi(111)â^'3Ã—3R30Â°surfaces. Physical Review B, 1999, 60, 11645-11652.	1.1	5
79	SIMS depth profile correction for the study of the first step of the diffusion of boron in silicon. Nuclear Instruments & Methods in Physics Research B, 1998, 142, 361-376.	0.6	8
80	Toward a better reliability in the deconvolution of SIMS depth profiles. Surface and Interface Analysis, 1998, 26, 974-983.	0.8	22
81	Carbon self-organization in the ternary Si1â^'xâ^'yGexCy alloy. Journal of Applied Physics, 1998, 83, 5251-5257.	1.1	2
82	Quantification of germanium and boron in heterostructures Si/Si1â^'xGex/Si by SIMS. Thin Solid Films, 1997, 294, 54-58.	0.8	28