Christophe Gatel

List of Publications by Year
in descending order

121 papers	2,887 citations	159585 30 h-index	197818 49 g-index
128 all docs	128 docs citations	128 times ranked	3874 citing authors

#	Article	IF	Citations
1	Key Signatures of Magnetofossils Elucidated by Mutant Magnetotactic Bacteria and Micromagnetic Calculations. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	22
2	Mapping electric fields in real nanodevices by operando electron holography. Applied Physics Letters, 2022, 120, .	3.3	1
3	Defect-induced monopole injection and manipulation in artificial spin ice. Nature Communications, 2022, 13, .	12.8	0
4	Phase detection limits in off-axis electron holography from pixelated detectors: gain variations, geometric distortion and failure of reference-hologram correction. Microscopy (Oxford, England), 2021, 70, 47-58.	1.5	3
5	Single-Crystalline Body Centered FeCo Nano-Octopods: From One-Pot Chemical Growth to a Complex 3D Magnetic Configuration. Nano Letters, 2021, 21, 3664-3670.	9.1	6
6	Dynamic automation in transmission electron microscopy: application to electron holography. Microscopy and Microanalysis, 2021, 27, 248-250.	0.4	0
7	Field tunable three-dimensional magnetic nanotextures in cobalt-nickel nanowires. Physical Review Research, 2021, 3, .	3.6	6
8	Synthesis of magnetic Fe and Co nano-whiskers and platelets via physical vapor deposition. Materials and Design, 2021, 208, 109914.	7.0	6
9	Exotic Transverse-Vortex Magnetic Configurations in CoNi Nanowires. ACS Nano, 2020, 14, 1399-1405.	14.6	15
10	2D and 3D Electron Holography Revealing Complex Magnetic Configurations in CoNi Nanowires. Microscopy and Microanalysis, 2020, 26, 1544-1545.	0.4	1
11	Customized MFM probes based on magnetic nanorods. Nanoscale, 2020, 12, 10090-10097.	5.6	25
12	Holographic vector field electron tomography of three-dimensional nanomagnets. Communications Physics, 2019, 2, .	5.3	45
13	Multi magnetic states in Co/Cu multilayered cylindrical nanowires studied by combination of off-axis electron holography imaging and micromagnetic simulations. Journal of Applied Physics, 2019, 126, 163906.	2.5	1
14	Magnetic imaging using geometrically constrained nano-domain walls. Nanoscale, 2019, 11, 4478-4488.	5.6	14
15	Optimization of off-axis electron holography performed with femtosecond electron pulses. Ultramicroscopy, 2019, 202, 26-32.	1.9	13
16	Nanoparticle Ripening : A Versatile Approach for the Size and Shape Control of Metallic Iron Nanoparticles. ChemPlusChem, 2019, 84, 302-306.	2.8	1
17	One-Pot Seed-Mediated Growth of Co Nanoparticles by the Polyol Process: Unraveling the Heterogeneous Nucleation. Nano Letters, 2019, 19, 9160-9169.	9.1	25
18	Air-Stable Anisotropic Monocrystalline Nickel Nanowires Characterized Using Electron Holography. Nano Letters, 2018, 18, 1733-1738.	9.1	23

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19	Magnetic Configurations in Three-Dimensional Nanomagnets Explored by Electron Holographic Tomography. Microscopy and Microanalysis, 2018, 24, 914-915.	0.4	1
20	Off-axis electron holography for the quantitative study of magnetic properties of nanostructures: from the single nanomagnet to the complex device.. , 2018, , .		0
21	Unlimited acquisition time in electron holography by automated feedback control of transmission electron microscope. Applied Physics Letters, 2018, 113, .	3.3	22
22	Magnetic-field induced rotation of magnetosome chains in silicified magnetotactic bacteria. Scientific Reports, 2018, 8, 7699.	3.3	19
23	Optimising electron microscopy experiment through electron optics simulation. Ultramicroscopy, 2017, 175, 67-80.	1.9	10
24	In Depth Spatially Inhomogeneous Phase Transition in Epitaxial MnAs Film on GaAs(001). Nano Letters, 2017, 17, 2460-2466.	9.1	5
25	Inhomogeneous spatial distribution of the magnetic transition in an iron-rhodium thin film. Nature Communications, 2017, 8, 15703.	12.8	37
26	Role of internal demagnetizing field for the dynamics of a surface-modulated magnonic crystal. Physical Review B, 2017, 95, .	3.2	20
27	Platinum tripods as nanometric frequency multiplexing devices. Nanoscale, 2017, 9, 14635-14640.	5.6	4
28	Probing domain walls in cylindrical magnetic nanowires with electron holography. Journal of Physics: Conference Series, 2017, 903, 012055.	0.4	6
29	In Situ Lorentz Microscopy and Electron Holography Magnetization Studies of Ferromagnetic Focused Electron Beam Induced Nanodeposits. , 2017, , 305-338.		0
30	Magnetism and morphology in faceted B2-ordered FeRh nanoparticles. Europhysics Letters, 2016, 116, 27006.	2.0	8
31	Highly strained AlAs-type interfaces in InAs/AlSb heterostructures. Applied Physics Letters, 2016, 108, .	3.3	19
32	Assessment of off-axis and in-line electron holography for measurement of potential variations in Cu(In,Ga)Se2 thin-film solar cells. Advanced Structural and Chemical Imaging, 2016, 2, .	4.0	6
33	Quantitative Nanoscale Magnetic Study of Isolated Diameter-Modulated FeCoCu Nanowires. ACS Nano, 2016, 10, 9669-9678.	14.6	54
34	Dynamical holographic MoirÃ©s in a TEM. Journal Physics D: Applied Physics, 2016, 49, 324001.	2.8	8
35	Magnetic Configurations in Co/Cu Multilayered Nanowires: Evidence of Structural and Magnetic Interplay. Nano Letters, 2016, 16, 1230-1236.	9.1	68
36	Quantitative 3D electromagnetic field determination of 1D nanostructures from single projection. Ultramicroscopy, 2016, 164, 24-30.	1.9	7

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37	Low-noise cold-field emission current obtained between two opposed carbon cone nanotips during in situ transmission electron microscope biasing. Applied Physics Letters, 2015, 106, .	3.3	8
38	Local Chemical and Deformation Profiles in InAs/AlSb Multilayer Structures for Quantum Cascade Lasers. Microscopy and Microanalysis, 2015, 21, 1925-1926.	0.4	0
39	Enhanced magnetization at the Cr/MgO(001) interface. Applied Physics Letters, 2015, 107, 251602.	3.3	2
40	Off-Axis Electron Holography for the Quantitative Study of Magnetic Properties of Nanostructures: From the Single Nanomagnet to the Complex Device. Microscopy and Microanalysis, 2015, 21, 2147-2148.	0.4	0
41	Three Dimensional Visualization of Electromagnetic Fields from One Dimensional Nanostructures. Microscopy and Microanalysis, 2015, 21, 1977-1978.	0.4	0
42	Crystal growth of bullet-shaped magnetite in magnetotactic bacteria of the Nitrospirae phylum. Journal of the Royal Society Interface, 2015, 12, 20141288.	3.4	48
43	In situ electron holography of the dynamic magnetic field emanating from a hard-disk drive writer. Nano Research, 2015, 8, 1241-1249.	10.4	14
44	Air- and Water-Resistant Noble Metal Coated Ferromagnetic Cobalt Nanorods. ACS Nano, 2015, 9, 2792-2804.	14.6	27
45	Size-Specific Spin Configurations in Single Iron Nanomagnet: From Flower to Exotic Vortices. Nano Letters, 2015, 15, 6952-6957.	9.1	63
46	Sb surfactant mediated growth of InAs/AlAs0.56Sb0.44 strained quantum well for intersubband absorption at 1.55â€‰Î¼m. Applied Physics Letters, 2015, 106, .	3.3	2
47	Formation of strained interfaces in AlSb/InAs multilayers grown by molecular beam epitaxy for quantum cascade lasers. Journal of Applied Physics, 2015, 118, .	2.5	21
48	Structural investigation of magnetic FeRh epitaxial films. Materials Research Express, 2015, 2, 086401.	1.6	7
49	3D Magnetic Induction Maps of Nanoscale Materials Revealed by Electron Holographic Tomography. Chemistry of Materials, 2015, 27, 6771-6778.	6.7	64
50	Development of TEM and SEM high brightness electron guns using cold-field emission from a carbon nanotip. Ultramicroscopy, 2015, 151, 107-115.	1.9	48
51	Tunnel-mediated coupling between antiferromagnetic thin films. Physical Review B, 2014, 90, .	3.2	7
52	Elastic strains at interfaces in InAs/AlSb multilayer structures for quantum cascade lasers. Applied Physics Letters, 2014, 104, 031907.	3.3	15
53	Molecular beam epitaxy and properties of GaAsBi/GaAs quantum wells grown by molecular beam epitaxy: effect of thermal annealing. Nanoscale Research Letters, 2014, 9, 123.	5.7	22
54	Off-Axial Aberration Correction using a B-COR for Lorentz and HREM Modes. Microscopy and Microanalysis, 2014, 20, 932-933.	0.4	27

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55	Dynamic scattering theory for dark-field electron holography of 3D strain fields. Ultramicroscopy, 2014, 136, 42-49.	1.9	31
56	Structure, magnetic ordering, and spin filtering efficiency of NiFe2O4(111) ultrathin films. Applied Physics Letters, 2014, 104, .	3.3	37
57	Experimental investigation of the vibrational density of states and electronic excitations in metallic nanocrystals. Physical Review B, 2014, 89, .	3.2	30
58	Coâ€“Fe Nanodumbbells: Synthesis, Structure, and Magnetic Properties. Nano Letters, 2014, 14, 2747-2754.	9.1	29
59	Dynamical effects in strain measurements by dark-field electron holography. Ultramicroscopy, 2014, 147, 70-85.	1.9	19
60	High-resolution imaging of remanent state and magnetization reversal of superdomain structures in high-density cobalt antidot arrays. Nanotechnology, 2014, 25, 385703.	2.6	10
61	Determining the work function of a carbon-cone cold-field emitter by in situ electron holography. Micron, 2014, 63, 2-8.	2.2	25
62	Local Strain Measurements at Dislocations, Disclinations and Domain Boundaries. Microscopy and Microanalysis, 2014, 20, 1044-1045.	0.4	0
63	Epitaxial growth micro-structure and magnetic studies of FePt nanoparticlesï¼šMgO multi-layer composite thin films. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 166801.	0.5	3
64	Quantitative in situ magnetization reversal studies in Lorentz microscopy and electron holography. Ultramicroscopy, 2013, 134, 144-154.	1.9	25
65	Counting Elementary Charges on Nanoparticles by Electron Holography. Physical Review Letters, 2013, 111, 025501.	7.8	49
66	Magnetism of CoFe2O4 ultrathin films on MgAl2O4 driven by epitaxial strain. Applied Physics Letters, 2013, 103, .	3.3	50
67	TEM study of structural hardening in a new martensitic steel for aeronautic application. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 576, 290-297.	5.6	6
68	Optimized cobalt nanowires for domain wall manipulation imaged by in situ Lorentz microscopy. Applied Physics Letters, 2013, 102, .	3.3	23
69	Imaging the Fine Structure of a Magnetic Domain Wall in a Ni Nanocylinder. Nano Letters, 2013, 13, 2053-2057.	9.1	101
70	Contrast enhancement of data measured with area detectors: a way to generalize the use of neutron diffraction for thin-film studies. Journal of Applied Crystallography, 2013, 46, 726-735.	4.5	2
71	Mesures et modÃ©lisations des dÃ©formations Ã©lastiques autour de nanoprÃ©cipitÃ©s. Revue De Metallurgie, 2012, 109, 409-414.	0.3	0
72	Stabilizing Vortices in Interacting Nano-Objects: A Chemical Approach. Nano Letters, 2012, 12, 3245-3250.	9.1	30

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73	Investigation of high quality magnetite thin films grown on SrTiO3(001) substrates by pulsed laser deposition. Thin Solid Films, 2012, 525, 115-120.	1.8	26
74	Mechanisms of epitaxy and defects at the interface in ultrathin YSZ films on Si(001). CrystEngComm, 2012, 14, 7851.	2.6	13
75	Tuning Complex Shapes in Platinum Nanoparticles: From Cubic Dendrites to Fivefold Stars. Angewandte Chemie - International Edition, 2012, 51, 4690-4694.	13.8	78
76	A new linear transfer theory and characterization method for image detectors. Part II: Experiment. Ultramicroscopy, 2012, 115, 78-87.	1.9	22
77	Epitaxial growth and ferrimagnetic behavior of MnFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>4</mml:mn></mml:mrow>	3.2	44
78	Use of long chain amine as a reducing agent for the synthesis of high quality monodisperse iron(0) nanoparticles. Journal of Materials Chemistry, 2011, 21, 13464.	6.7	71
79	Ultrasmall Functional Ferromagnetic Nanostructures Grown by Focused Electron-Beam-Induced Deposition. ACS Nano, 2011, 5, 7781-7787.	14.6	105
80	Structure and chemical order in FeRh nanolayers epitaxially grown on MgO(001). Journal of Crystal Growth, 2011, 314, 336-340.	1.5	11
81	Microstructure and interface studies of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">LaVO</mml:mi><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>/<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">SrVO</mml:mi><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>su	3.2	21
82	Physical Review B, 2011, 83, . Towards a Room Temperature Organic Spin Valve: Structural, Magnetic and Transport Properties of Fe3O4/PTCTE/Co Devices. Materials Research Society Symposia Proceedings, 2011, 1359, 193.	0.1	0
83	Restoration of bulk magnetic properties by strain engineering in epitaxial CoFe2O4 (001) ultrathin films. Applied Physics Letters, 2011, 99, .	3.3	35
84	Measuring lattice distortions from HR(S)TEM images. Acta Crystallographica Section A: Foundations and Advances, 2011, 67, C106-C106.	0.3	0
85	Effect of spatial and energy distortions on energy-loss magnetic chiral dichroism measurements: Application to an iron thin film. Ultramicroscopy, 2010, 110, 1033-1037.	1.9	15
86	Analysis by high-resolution electron microscopy of elastic strain in thick InAs layers embedded in Ga0.47In0.53As buffers on InP(0 0 1) substrate. Acta Materialia, 2010, 58, 3238-3246.	7.9	8
87	Achievement of InSb Quantum Dots on InP(100) Substrates. Japanese Journal of Applied Physics, 2010, 49, 060210.	1.5	1
88	Electron holography study of the local magnetic switching process in magnetic tunnel junctions. Journal of Applied Physics, 2010, 107, 09D310.	2.5	8
89	Magnetic properties of FeCo alloys measured by energy-loss magnetic chiral dichroism. Journal of Applied Physics, 2010, 107, .	2.5	11
90	Microstructure and mechanical properties of ultrafine-grained fcc/hcp cobalt processed by a bottom-up approach. Journal of Alloys and Compounds, 2010, 489, 424-428.	5.5	18

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91	Magnetic field strength and orientation effects on Co-Fe discontinuous multilayers close to percolation. Physical Review B, 2010, 82, .	3.2	7
92	Exchange bias in Co/CoO core-shell nanowires: Role of antiferromagnetic superparamagnetic fluctuations. Physical Review B, 2009, 80, .	3.2	55
93	Distortion corrections of ESI data cubes for magnetic studies. Ultramicroscopy, 2009, 109, 1465-1471.	1.9	8
94	Lorentz microscopy mapping for domain wall structure study in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0007.gif" overflow="scroll"><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mn>0</mml:mn></mml:mrow></mml:msub></mml:math> FePd thin films. Ultramicroscopy, 2009, 110, 20-25.	1.9	7
95	The use of Lorentz microscopy for the determination of magnetic reversal mechanism of exchange-biased Co30Fe70/NiMn bilayer. Journal of Magnetism and Magnetic Materials, 2009, 321, 3080-3083.	2.3	15
96	Crystalline structure of oxide-based epitaxial tunnel junctions. European Physical Journal: Special Topics, 2009, 167, 53-58.	2.6	4
97	Quantitative Observation of Magnetic Flux Distribution in New Magnetic Films for Future High Density Recording Media. Nano Letters, 2009, 9, 2803-2806.	9.1	26
98	Optimal aperture sizes and positions for EMCD experiments. Ultramicroscopy, 2008, 108, 865-872.	1.9	31
99	c-axis inclined AlN film growth in planar system for shear wave devices. Diamond and Related Materials, 2008, 17, 1770-1774.	3.9	14
100	Synthesis of carbon coated Î²-SiC nanofibers by microwave plasma assisted chemical vapour deposition in CH4/H2 gas mixture. Diamond and Related Materials, 2008, 17, 1660-1665.	3.9	5
101	Magnetic Configurations of 30 nm Iron Nanocubes Studied by Electron Holography. Nano Letters, 2008, 8, 4293-4298.	9.1	121
102	Lorentz microscopy mapping during magnetization process of L1₀FePd thin films. Journal of Physics: Conference Series, 2008, 126, 012055.	0.4	2
103	TEM Analysis Of Advanced Devices For Electronics Or Spintronics: From Structure To Properties. NATO Science for Peace and Security Series B: Physics and Biophysics, 2008, , 249-262.	0.3	0
104	Orbital and spin sum rules for electron energy loss magnetic chiral dichroism: Application to metals and oxides. , 2008, , 359-360.		0
105	Room temperature spin filtering in epitaxial cobalt-ferrite tunnel barriers. Applied Physics Letters, 2007, 91, .	3.3	184
106	Experimental application of sum rules for electron energy loss magnetic chiral dichroism. Physical Review B, 2007, 76, .	3.2	81
107	Electron Microscopy Investigation of Magnetization Process in Thin Foils and Nanostructures. Materials Research Society Symposia Proceedings, 2007, 1026, 1.	0.1	0
108	Magnetic Chiral Dichroism Studies using Energy Filtered Images. Materials Research Society Symposia Proceedings, 2007, 1026, 1.	0.1	0

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109	Influence of a metallic or oxide top layer in epitaxial magnetic bilayers containingCoFe2O4(111)tunnel barriers. Physical Review B, 2007, 75, .	3.2	52
110	Epitaxial growth of Au and Pt on Fe3O4(111) surface. Surface Science, 2007, 601, 1031-1039.	1.9	27
111	Experimental evidence of the spin-dependence of electrons reflections in magnetic multilayers. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 126, 120-125.	3.5	2
112	Comparative study of Pt, Au and Ag growth on Fe3O4(001) surface. Surface Science, 2006, 600, 2650-2662.	1.9	34
113	Experimental evidence of the spin dependence of electron reflections in magneticCoFe2O4âˆ•Auâˆ•Fe3O4trilayers. Physical Review B, 2006, 73, .	3.2	21
114	Characterization of antiphase boundary network inFe3O4(111)epitaxial thin films: Effect on anomalous magnetic behavior. Physical Review B, 2006, 74, .	3.2	32
115	Magnetotransport properties of Fe3O4 epitaxial thin films: Thickness effects driven by antiphase boundaries. Journal of Applied Physics, 2006, 100, 103902.	2.5	82
116	Epitaxial growth and magnetic exchange anisotropy in Fe3O4/NiO bilayers grown on MgO(001) and Al2O3(0001). European Physical Journal B, 2005, 45, 157-168.	1.5	29
117	Thickness dependence of anomalous magnetic behavior in epitaxial Fe3O4(111) thin films: Effect of density of antiphase boundaries. Physical Review B, 2004, 70, .	3.2	123
118	Epitaxial growth and exchange coupling in NiOâ€“Fe3O4 bilayers deposited on MgO(0 0 1) and Al2O3(0 0) Tj ETQq0 0 0 rgBT /Overlock	2.3	4
119	Morphology of Pt islands grown on MgO(001). Journal of Crystal Growth, 2003, 252, 424-432.	1.5	30
120	Ã‰tudes par diffraction haute rÃ©solution et rÃ©flectivitÃ© de films minces Ã©pitaxiÃ©s. European Physical Journal Special Topics, 2002, 12, 247-254.	0.2	0
121	Magnetic behavior and role of the antiphase boundaries in Fe3O4 epitaxial films sputtered on MgO (001). European Physical Journal B, 2001, 24, 43-49.	1.5	49