

Amanda K Petford-Long

List of Publications by Year in descending order

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119
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218381

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119
all docs

119
docs citations

119
times ranked

5193
citing authors

#	ARTICLE	IF	CITATIONS
1	Geometric control of emergent antiferromagnetic order in coupled artificial spin ices. Cell Reports Physical Science, 2022, 3, 100846.	2.8	1
2	Field-Dependent Magnetic Domain Behavior in van der Waals Fe ₃ GeTe ₂ . Jom, 2022, 74, 2310-2318.	0.9	4
3	The effect of annealing on optical transmittance and structure of ZLANI fluorozirconate glass thin films. Micron, 2021, 140, 102977.	1.1	2
4	Towards data-driven next-generation transmission electron microscopy. Nature Materials, 2021, 20, 274-279.	13.3	130
5	Understanding Complex Magnetic Spin Textures with Simulation-Assisted Lorentz Transmission Electron Microscopy. Physical Review Applied, 2021, 15, .	1.5	31
6	Europium-doped barium chloride storage phosphor plate synthesized by pulsed laser deposition. Journal of the American Ceramic Society, 2021, 104, 4568-4576.	1.9	0
7	Large spin-to-charge conversion in ultrathin gold-silicon multilayers. Physical Review Materials, 2021, 5, .	0.9	2
8	Mesoscale Confinement Effects and Emergent Quantum Interference in Titania Antidot Thin Films. ACS Nano, 2021, 15, 12935-12944.	7.3	1
9	Freestanding Ferroelectric Bubble Domains. Advanced Materials, 2021, 33, e2105432.	11.1	18
10	Ferroelectric Domain Wall Motion in Freestanding Single-Crystal Complex Oxide Thin Film. Advanced Materials, 2020, 32, e1907036.	11.1	30
11	Curved Three-Dimensional Cobalt Nanohelices for Use in Domain Wall Device Applications. ACS Applied Nano Materials, 2020, 3, 6009-6016.	2.4	14
12	Active analog tuning of the phase of light in the visible regime by bismuth-based metamaterials. Nanophotonics, 2020, 9, 885-896.	2.9	9
13	The Correlation of Optical Transmittance with Structural Evolution in Fluorozirconate Glass (ZLANI) Thin Films as a Function of Thermal Annealing. Microscopy and Microanalysis, 2019, 25, 2070-2071.	0.2	1
14	Less is More: Improved Thermal Stability and Plasmonic Response in Au Films via the Use of SubNanometer Ti Adhesion Layers. ACS Applied Materials & Interfaces, 2019, 11, 7607-7614.	4.0	21
15	Quantifying chiral exchange interaction for Néel-type skyrmions via Lorentz transmission electron microscopy. Physical Review B, 2019, 99, .	1.1	21
16	Ferroelectric Domain Studies of Patterned (001) BiFeO ₃ by Angle-Resolved Piezoresponse Force Microscopy. Scientific Reports, 2018, 8, 203.	1.6	9
17	Topological Defects and Interaction of Electron Waves and Localized Magnetic Charge. Microscopy and Microanalysis, 2018, 24, 940-941.	0.2	1
18	Direct Evidence of Topological Defects in Electron Waves through Nanoscale Localized Magnetic Charge. Nano Letters, 2018, 18, 6989-6994.	4.5	2

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19	Correlative Magnetic Imaging of Heat-Assisted Magnetic Recording Media in Cross Section Using Lorentz TEM and MFM. IEEE Transactions on Magnetics, 2018, 54, 1-5.	1.2	1
20	Interface-induced phenomena in magnetism. Reviews of Modern Physics, 2017, 89, .	16.4	672
21	Visualization of Magnetization in CoFe Nanofibers by Lorentz TEM and Electron Holography. Microscopy and Microanalysis, 2016, 22, 1692-1693.	0.2	1
22	Nanoscale Skyrmions in a Nonchiral Metallic Multiferroic: Ni ₂ MnGa. Nano Letters, 2016, 16, 4141-4148.	4.5	79
23	Evaluation of a Fluorochlorozirconate Glass-Ceramic Storage Phosphor Plate for Gamma-Ray Computed Radiography. Journal of the American Ceramic Society, 2015, 98, 2541-2547.	1.9	11
24	<i>In situ</i> TEM study of reversible and irreversible electroforming in Pt/Ti:NiO/Pt heterostructures. Physica Status Solidi - Rapid Research Letters, 2015, 9, 301-306.	1.2	10
25	Three dimensional magnetic field reconstruction of artificial Skyrmion heterostructures. Microscopy and Microanalysis, 2015, 21, 1959-1960.	0.2	0
26	Structural and Kinetic Analysis of BaCl ₂ Nanocrystals in Fluorochlorozirconate Glass-Ceramics. Journal of the American Ceramic Society, 2015, 98, 1099-1104.	1.9	9
27	Bipolar resistance switching in Pt/CuOx/Pt via local electrochemical reduction. Applied Physics Letters, 2014, 104, .	1.5	19
28	Visualization of the Magnetic Structure of Sculpted Three-Dimensional Cobalt Nanospirals. Nano Letters, 2014, 14, 759-764.	4.5	73
29	Nanocrystallization in Fluorochlorozirconate Glass-Ceramics. Journal of the American Ceramic Society, 2013, 96, 3617-3621.	1.9	13
30	Visualization of magnetic domain structure changes induced by interfacial strain in CoFe ₂ O ₄ /BaTiO ₃ heterostructures. Journal Physics D: Applied Physics, 2013, 46, 055001.	1.3	18
31	A Method for Directly Correlating Site-Specific Cross-Sectional and Plan-View Transmission Electron Microscopy of Individual Nanostructures. Microscopy and Microanalysis, 2012, 18, 1410-1418.	0.2	10
32	Catalyst Incorporation at Defects during Nanowire Growth. Nano Letters, 2012, 12, 167-171.	4.5	58
33	Three-dimensional characterization of near-field transducers by electron tomography. Materials Characterization, 2012, 72, 104-110.	1.9	0
34	Atomic Structural Analysis of Nanowire Defects and Polytypes Enabled Through Cross-Sectional Lattice Imaging. Small, 2012, 8, 1717-1724.	5.2	13
35	Effects of elemental distributions on the behavior of MgO-based magnetic tunnel junctions. Journal of Applied Physics, 2011, 109, 103909.	1.1	15
36	Effect of annealing and applied bias on barrier shape in CoFe/MgO/CoFe tunnel junctions. Physical Review B, 2011, 83, .	1.1	16

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37	Structure-property relationships in self-assembled metalorganic chemical vapor deposition-grown CoFe ₂ O ₄ /PbTiO ₃ multiferroic nanocomposites using three-dimensional characterization. Journal of Applied Physics, 2011, 110, 034103.	1.1	12
38	Analysis of computational EELS modelling results for MgO-based systems. Ultramicroscopy, 2010, 110, 1059-1069.	0.8	5
39	Enhanced spin signals due to native oxide formation in Ni ₈₀ Fe ₂₀ /Ag lateral spin valves. Applied Physics Letters, 2010, 97, .	1.5	31
40	Three-Dimensional Study of the Vector Potential of Magnetic Structures. Physical Review Letters, 2010, 104, 253901.	2.9	84
41	The role of interfaces in the behavior of magnetic tunnel junction structures. International Journal of Materials Research, 2010, 101, 16-20.	0.1	1
42	Three-dimensional ferroelectric domain imaging of epitaxial BiFeO ₃ thin films using angle-resolved piezoresponse force microscopy. Applied Physics Letters, 2010, 97, .	1.5	54
43	Nanoscale piezoresponse studies of ferroelectric domains in epitaxial BiFeO ₃ nanostructures. Journal of Applied Physics, 2009, 105, 061619.	1.1	37
44	Effect of oxidation and annealing on tunnel barrier structure and composition in IrMn/CoFe/TiOx/CoFe magnetic tunnel junctions. Journal of Applied Physics, 2009, 106, .	1.1	3
45	In situ TEM observation of magnetic materials. Microscopy Research and Technique, 2009, 72, 187-196.	1.2	17
46	Transmission Electron Microscopy of Multilayer Thin Films. Annual Review of Materials Research, 2008, 38, 559-584.	4.3	28
47	Electric and Magnetic Phenomena Studied by In Situ Transmission Electron Microscopy. MRS Bulletin, 2008, 33, 101-106.	1.7	21
48	Optical spectroscopy and energy-filtered transmission electron microscopy of surface plasmons in core-shell nanoparticles. Journal of Applied Physics, 2007, 101, 024307.	1.1	17
49	Transmission Electron Microscopy Study of the Fe(001) vs MgO(001) Interface for Magnetic Tunnel Junctions. IEEE Transactions on Magnetics, 2007, 43, 2779-2781.	1.2	18
50	Growth and properties of epitaxial PtMn/NiFe bilayers on Si (001) substrate containing directly deposited ordered PtMn. Thin Solid Films, 2005, 489, 186-191.	0.8	0
51	Epitaxial PtMn/NiFe exchange-biased bilayers containing directly deposited ordered PtMn. Journal of Applied Physics, 2005, 97, 10C512.	1.1	4
52	Magnetic properties of patterned tunnel junctions. Journal of Applied Physics, 2003, 93, 7287-7289.	1.1	15
53	Control of ferromagnetic coupling by in situ interface modification. Journal of Applied Physics, 2003, 94, 7687.	1.1	2
54	Nonuniform magnetic structure in Nd ₂ Fe ₁₄ B/Fe ₃ B nanocomposite materials. Journal of Applied Physics, 2003, 93, 8119-8121.	1.1	15

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55	Effects of two in-plane fields on the magnetization reversal mechanism in magnetic tunnel junction elements. Journal of Applied Physics, 2002, 91, 7703.	1.1	3
56	Magnetization reversal of the ferromagnetic layer in IrMn/CoFe bilayers. Journal of Applied Physics, 2002, 92, 6699-6707.	1.1	27
57	Effect of Ti seed layer on the magnetization reversal process of Co/NiFe/Al-oxide/NiFe junction films. Journal of Applied Physics, 2002, 91, 5234-5239.	1.1	17
58	Lorentz transmission electron microscopy and magnetic force microscopy characterization of NiFe/Al-oxide/Co films. Journal of Applied Physics, 2002, 91, 780-784.	1.1	5
59	Structural studies of Ag nanocrystals embedded in amorphous Al ₂ O ₃ grown by pulsed laser deposition. Nanotechnology, 2002, 13, 465-470.	1.3	63
60	Thermally activated reversal in exchange-coupled structures. IEEE Transactions on Magnetics, 2002, 38, 2773-2775.	1.2	2
61	Application of a focused ion beam system to micro and nanoengineering. Materials Science and Technology, 2002, 18, 743-748.	0.8	24
62	The structural and magnetic characterization of molecular-beam-epitaxy-grown FeMn-NiFe exchange-biased bilayers. IEEE Transactions on Magnetics, 2002, 38, 2758-2760.	1.2	15
63	Focused ion beam micromachining of three-dimensional structures and three-dimensional reconstruction to assess their shape. Journal of Micromechanics and Microengineering, 2002, 12, 111-114.	1.5	27
64	Structure and thermal stability of Fe : Al ₂ O ₃ nanocomposite films. Journal Physics D: Applied Physics, 2002, 35, 916-922.	1.3	10
65	Optical and magneto-optical properties of Fe nanoparticles. Physical Review B, 2002, 65, .	1.1	48
66	Determination of the isothermal nucleation and growth parameters for the crystallization of thin Ge ₂ Sb ₂ Te ₅ films. Journal of Applied Physics, 2002, 92, 3116-3123.	1.1	165
67	Effect of Ga implantation on the magnetic properties of permalloy thin films. Journal of Applied Physics, 2002, 91, 9937.	1.1	51
68	Patterning magnetic antidot-type arrays by Ga/sup +/- implantation. IEEE Transactions on Magnetics, 2002, 38, 2553-2555.	1.2	9
69	Magnetisation reversal of the ferromagnetic layer in IrMn/CoFe bilayer films. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1073-1076.	1.0	10
70	The development of information storage materials " How microscopy can help?. Pramana - Journal of Physics, 2002, 58, 1125-1129.	0.9	0
71	High resolution structural and magnetic imaging. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 53-58.	1.0	1
72	Crystalline structure and magnetic and magneto-optical properties of MnSbBi thin films. Thin Solid Films, 2002, 410, 28-37.	0.8	5

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73	The structural characterisation of molecular beam epitaxy-grown exchange-biased bilayers. <i>Thin Solid Films</i> , 2002, 413, 41-45.	0.8	5
74	The influence of laser annealing on the crystallization processes in amorphous Co-rich alloys. <i>Journal of Materials Science</i> , 2002, 37, 2773-2780.	1.7	5
75	Magnetic behavior of Fe:Al ₂ O ₃ nanocomposite films produced by pulsed laser deposition. <i>Journal of Applied Physics</i> , 2001, 90, 6268-6274.	1.1	46
76	Reactive sputtering of high moment Fe-N soft magnetic films with in-situ plasma diagnosis and control. <i>IEEE Transactions on Magnetics</i> , 2001, 37, 2284-2287.	1.2	5
77	High Resolution Electron Microscopy Observation of Different Al-oxide Layers in Magnetic Tunnel Junctions. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 5058-5064.	0.8	1
78	Preparation of site specific transmission electron microscopy plan-view specimens using a focused ion beam system. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 755.	1.6	33
79	Structural studies of pulsed-laser deposited nanocomposite metal-oxide films. <i>Journal of Microscopy</i> , 2001, 201, 250-255.	0.8	16
80	Comparing the Johnson-Mehl-Avrami-Kolmogorov equations for isothermal and linear heating conditions. <i>Thermochimica Acta</i> , 2001, 378, 97-105.	1.2	126
81	Atomic scale structure of sputtered metal multilayers. <i>Acta Materialia</i> , 2001, 49, 4005-4015.	3.8	664
82	Applications of nanocomposites. <i>Scripta Materialia</i> , 2001, 44, 2055-2059.	2.6	24
83	Magneto-optical response of isolated and embedded Fe nanoparticles. <i>IEEE Transactions on Magnetics</i> , 2001, 37, 1416-1418.	1.2	4
84	Direct Observation of Domain Structure and Magnetization Reversal of Magnetic Thin Films Using Lorentz Transmission Electron Microscopy. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 4891-4896.	0.8	6
85	Magnetization reversal processes in exchange-biased spin-valve structures. <i>IEEE Transactions on Magnetics</i> , 2001, 37, 565-570.	1.2	23
86	Preparation of transmission electron microscopy cross-section specimens using focused ion beam milling. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 2186-2193.	0.9	223
87	Broad ion beam milling of focused ion beam prepared transmission electron microscopy cross sections for high resolution electron microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 982-985.	0.9	38
88	Microstructural studies of top and bottom magnetic tunnel junctions. <i>Applied Physics Letters</i> , 2001, 79, 57-59.	1.5	3
89	Lorentz microscopy study of magnetization reversal mechanism in magnetic tunnel junction elements. <i>Journal of Applied Physics</i> , 2001, 89, 7368-7370.	1.1	7
90	Atom probe analysis of roughness and chemical intermixing in CoFe/Cu films (invited). <i>Journal of Applied Physics</i> , 2001, 89, 7517-7521.	1.1	26

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91	High-resolution electron microscopy study of tunnelling junctions with AlN and AlON barriers. Journal of Applied Physics, 2001, 89, 6874-6876.	1.1	10
92	Structure and chemistry of manganite based tunnel junctions. Journal of Applied Physics, 2001, 89, 6757-6759.	1.1	6
93	Magnetization reversal in the pinned layer of PtMnCr/NiFe exchange biased bilayers. Journal of Applied Physics, 2001, 89, 6591-6593.	1.1	4
94	Determination of hydrogen ordering within the \hat{I}^2 -RH ₂ +xphase (R= Ho, Y) using electron diffraction techniques. Journal of Applied Crystallography, 2000, 33, 1246-1252.	1.9	3
95	Lorentz Microscopy Observation of Magnetic Domain Structure Variation in NiFe/Au Multilayer Films Caused by Au Layer Thickness. Materials Transactions, JIM, 1999, 40, 883-886.	0.9	1
96	In Situ Transmission Electron Microscopy Studies of the Magnetization Reversal Mechanism in Information Storage Materials. Microscopy and Microanalysis, 1998, 4, 325-333.	0.2	9
97	Thickness and grain-size dependence of the coercivity in permalloy thin films. Journal of Applied Physics, 1997, 81, 4122-4124.	1.1	50
98	Structural characterisation of multilayer films. Thin Solid Films, 1996, 275, 35-39.	0.8	2
99	Kinetics of grain-boundary reactions at semimetal-semiconductor interfaces observed during <i>in-situ</i> transmission electron microscope annealing. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 74, 907-918.	0.8	5
100	Structural characterisation of multilayer films. , 1996, , 35-39.		0
101	The magnetic domain structure of Gd/W multilayer films observed at low temperatures by Lorentz microscopy. Journal of Magnetism and Magnetic Materials, 1993, 126, 41-44.	1.0	2
102	The effects of annealing on magnetic domain structure and interface profile in sputtered Fe/Cr multilayer films. Journal of Magnetism and Magnetic Materials, 1993, 126, 117-120.	1.0	18
103	The correlation between microstructure, chemical profile and reflectivity changes in laser-irradiated Sb/Ge multilayer films. Journal of Magnetism and Magnetic Materials, 1993, 126, 599-601.	1.0	1
104	Atom-Probe Microanalysis of Metallic Nanostructured Materials. Materials Research Society Symposia Proceedings, 1992, 286, 167.	0.1	3
105	Atom probe analysis and modelling of interfaces in magnetic multilayers. Ultramicroscopy, 1992, 47, 367-374.	0.8	20
106	Atom Probe Studies of Interfaces in Metallic Multilayers. Materials Research Society Symposia Proceedings, 1991, 230, 79.	0.1	1
107	Combined study of multiple-quantum-well structures using high resolution electron microscopy imaging and analysis in conjunction with the position-sensitive atom probe. Materials Characterization, 1990, 25, 157-176.	1.9	8
108	The use of high resolution electron microscopy and image simulation to determine the sharpness of InP/GaInAs interfaces in multiple quantum-well structures. Ultramicroscopy, 1989, 31, 385-397.	0.8	8

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109	Atomar aufgelöste Echtzeit-Abbildung polymorpher Änderungen bei Ruthenium-Clustern. <i>Angewandte Chemie</i> , 1988, 100, 580-583.	1.6	9
110	Real-Time Atomic-Resolution Imaging of Polymorphic Changes in Ruthenium Clusters. <i>Angewandte Chemie International Edition in English</i> , 1988, 27, 555-558.	4.4	40
111	The real-time growth of atom planes on Ru, Rh and Sn microcrystals observed at atomic resolution. <i>Journal of Crystal Growth</i> , 1988, 89, 165-170.	0.7	12
112	On the growth of small crystals of Cd, Zn, Pt and Rh during electron microscope observations. <i>Journal of Crystal Growth</i> , 1987, 80, 218-224.	0.7	20
113	<i>In situ</i> oxidation processes for In III-V compound semiconductors studied by high-resolution electron microscopy. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1986, 54, 837-850.	0.8	22
114	A High Resolution TEM Study of In-Situ Surface Oxidation of Indium III-V Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 1986, 75, 725.	0.1	1
115	Atomic-resolution study of structural rearrangements in small platinum crystals. <i>Ultramicroscopy</i> , 1986, 20, 71-75.	0.8	82
116	Thermally activated reversal in exchange-coupled structures. , 0, , .		0
117	Correlation of magnetoresistance with deposition parameters and annealing in CoFe/Cu multilayers. , 0, , .		0
118	The structural and magnetic characterisation of MBE-grown FeMn/NiFe exchange-biased bilayers. , 0, , .		0
119	Patterning magnetic antidot-type arrays by Ga ⁺ implantation. , 0, , .		0