Dieter Engel

List of Publications by Year
in descending order

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68 papers	2,126 citations	279798 23 h-index	233421 45 g-index
68 all docs	68 docs citations	68 times ranked	2166 citing authors

#	Article	IF	Citations
1	Intrinsic energy flow in laser-excited <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>3</mml:mn><mml:mi>d</mml:mi></mml:math> ferromagnets. Physical Review Research, 2022, 4, .	3.6	11
2	Accelerating double pulse all-optical write/erase cycles in metallic ferrimagnets. Applied Physics Letters, 2022, 120, .	3.3	13
3	Deterministic Generation and Guided Motion of Magnetic Skyrmions by Focused He⁺-Ion Irradiation. Nano Letters, 2022, 22, 4028-4035.	9.1	24
4	All-Optical Switching on the Nanometer Scale Excited and Probed with Femtosecond Extreme Ultraviolet Pulses. Nano Letters, 2022, 22, 4452-4458.	9.1	9
5	Ultrafast element- and depth-resolved magnetization dynamics probed by transverse magneto-optical Kerr effect spectroscopy in the soft x-ray range. Physical Review Research, 2022, 4, .	3.6	8
6	Observation of fluctuation-mediated picosecond nucleation of a topological phase. Nature Materials, 2021, 20, 30-37.	27.5	68
7	Lattice dynamics and ultrafast energy flow between electrons, spins, and phonons in a 3d ferromagnet. Physical Review Research, 2021, 3, .	3.6	21
8	The patterning toolbox FIB-o-mat: Exploiting the full potential of focused helium ions for nanofabrication. Beilstein Journal of Nanotechnology, 2021, 12, 304-318.	2.8	13
9	Application concepts for ultrafast laser-induced skyrmion creation and annihilation. Applied Physics Letters, 2021, 118, .	3.3	23
10	Wide-field magneto-optical microscope to access quantitative magnetization dynamics with femtosecond temporal and sub-micrometer spatial resolution. Journal of Applied Physics, 2021, 130, 083905.	2.5	4
11	High-speed spatial encoding of modulated pumpâ€“probe signals with slow area detectors. Measurement Science and Technology, 2021, 32, 025901.	2.6	4
12	A tabletop setup for ultrafast helicity-dependent and element-specific absorption spectroscopy and scattering in the extreme ultraviolet spectral range. Review of Scientific Instruments, 2020, 91, 093001.	1.3	15
13	Distinct spectral response in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>M</mml:mi></mml:math> -edge magnetic circular dichroism. Physical Review B, 2020, 102, .	3.2	16
14	Transient magnetic gratings on the nanometer scale. Structural Dynamics, 2020, 7, 054501.	2.3	16
15	Element-Specific Magnetization Dynamics of Complex Magnetic Systems Probed by Ultrafast Magneto-Optical Spectroscopy. Applied Sciences (Switzerland), 2020, 10, 7580.	2.5	9
16	Origin of strong-field-induced low-order harmonic generation in amorphous quartz. Nature Physics, 2020, 16, 1035-1039.	16.7	51
17	Element Specificity of Transient Extreme Ultraviolet Magnetic Dichroism. Physical Review Letters, 2020, 124, 077203.	7.8	22
18	Optical inter-site spin transfer probed by energy and spin-resolved transient absorption spectroscopy. Nature Communications, 2020, 11, 871.	12.8	66

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19	Magneto-Optical Functions at the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>3</mml:mn><mml:mi>p</mml:mi></mml:mrow></mml:math> Resonances of Fe, Co, and Ni: AbÂinitio Description and Experiment. Physical Review Letters, 2019, 122, 217202.	7.8	27
20	Single-step fabrication of surface waveguides in fused silica with few-cycle laser pulses. Optics Letters, 2019, 44, 4267.	3.3	13
21	Fast current-driven domain walls and small skyrmions in a compensated ferrimagnet. Nature Nanotechnology, 2018, 13, 1154-1160.	31.5	406
22	Three-dimensional characterization of Co/Pd multilayer thin films using resonant soft x-ray scattering. Physical Review B, 2017, 95, .	3.2	4
23	Field-free deterministic ultrafast creation of magnetic skyrmions by spinâ€“orbit torques. Nature Nanotechnology, 2017, 12, 1040-1044.	31.5	215
24	Selective Alignment of Molecular Glass Wrinkles by Engineered Magnetic Field Landscapes. Advanced Functional Materials, 2015, 25, 6768-6774.	14.9	7
25	Plasma ion source for in situ ion bombardment in a soft x-ray magnetic scattering diffractometer. Review of Scientific Instruments, 2012, 83, 053303.	1.3	18
26	Controlled movement of superparamagnetic bead rows for microfluid mixing. Applied Physics Letters, 2012, 100, 153504.	3.3	37
27	Modifications of magnetic anisotropy and magnetization reversal in [Co0.4â€‰nm/Pd0.7â€‰nm]50 multilayers induced by 10â€‰keV-He ion bombardment. Journal of Applied Physics, 2012, 112, 063901.	2.5	5
28	Colloidal domain lithography in multilayers with perpendicular anisotropy: an experimental study and micromagnetic simulations. Nanotechnology, 2012, 23, 475303.	2.6	6
29	Asymmetric Magnetization Reversal of Stripeâ€Patterned Exchange Bias Layer Systems for Controlled Magnetic Particle Transport. Advanced Materials, 2011, 23, 5568-5573.	21.0	57
30	Colloidal domain lithography for regularly arranged artificial magnetic out-of-plane monodomains in Au/Co/Au layers. Nanotechnology, 2011, 22, 095302.	2.6	29
31	Thermal exchange bias field drifts after 10 keV He ion bombardment: Storage temperature dependence and initial number of coupling sites. Journal of Applied Physics, 2011, 110, 113911.	2.5	5
32	Thermal exchange bias field drift in field cooled Mn83Ir17/Co70Fe30 thin films after 10 keV He ion bombardment. Journal of Applied Physics, 2011, 109, 023910.	2.5	18
33	Domain-Wall Movement Control in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Co</mml:mi><mml:mo>/</mml:mo><mml:mi>Au</mml:mi></mml:math>Multilayers by<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>He</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math>-Ion-Bombardment-Induced Lateral Coercivity Gradients. Physical Review Letters, 2010, 105, 067202.	7.8	30
34	Selective Modification of Magnetic Properties of Co₁/Au/Co₂/Au Multilayers by He Ion Bombardment. Acta Physica Polonica A, 2009, 115, 326-328.	0.5	4
35	Domains Stimulated Magnetostatic Coupling in NiFe/Au/Co/Au Multilayers Investigated by Complementary Methods. Acta Physica Polonica A, 2009, 115, 345-347.	0.5	0
36	Hard and Soft X-Ray Reflectivity Studies Î¿f (NiFe/Au/Co/Au)₁₀Magnetic Multilayers. Acta Physica Polonica A, 2009, 115, 366-368.	0.5	0

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37	Magnetic Tailoring of Domains in NiFe/Au/Co/Au Multilayers by He Ion Bombardment through Nanospheres. Acta Physica Polonica A, 2009, 115, 348-351.	0.5	1
38	Magnetic field induced transition from weak to strong ferromagnetic coupling in NiFeâˆ•Auâˆ•Coâˆ•Au multilayers. Applied Physics Letters, 2008, 92, 012511.	3.3	20
39	Hyper-domains in exchange bias micro-stripe pattern. New Journal of Physics, 2008, 10, 093021.	2.9	22
40	Characterization of magnetic force microscopy probe tip remagnetization for measurements in external in-plane magnetic fields. Journal of Applied Physics, 2008, 104, .	2.5	12
41	Influence of ion bombardment induced patterning of exchange bias in pinned artificial ferrimagnets on the interlayer exchange coupling. Journal of Applied Physics, 2008, 103, 123903.	2.5	3
42	Manipulation of magnetic nanoparticles by the strayfield of magnetically patterned ferromagnetic layers. Journal of Applied Physics, 2007, 102, .	2.5	20
43	Reconfigurable magnetic logic for all basic logic functions produced by ion bombardment induced magnetic patterning. Applied Physics Letters, 2007, 91, 162505.	3.3	10
44	Polarized neutron reflectometry study on a magnetic film with an ion beam imprinted stripe pattern. Superlattices and Microstructures, 2007, 41, 104-108.	3.1	2
45	Exchange-bias instability in a bilayer with an ion-beam imprinted stripe pattern of ferromagnetic/antiferromagnetic interfaces. Physical Review B, 2006, 73, .	3.2	49
46	Domain structure and magnetoresistance of NiFe/Au/Co/Au multilayers with perpendicular anisotropy. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 57-60.	0.8	8
47	Fundamentals for magnetic patterning by ion bombardment of exchange bias layer systems. Physica Status Solidi (B): Basic Research, 2006, 243, 29-36.	1.5	40
48	Magnetic and chemical properties of Co[sub 2]MnSi thin films compared to the Co[sub 2]MnSiâˆ•Al-O interface. Journal of Applied Physics, 2006, 100, 113903.	2.5	5
49	Switchable resonant x-ray Bragg scattering on a magnetic grating patterned by ion bombardment. Journal of Applied Physics, 2006, 100, 063903.	2.5	2
50	Thermal stability of magnetic nanostructures in ion-bombardment-modified exchange-bias systems. Physical Review B, 2006, 73, .	3.2	5
51	Initialization of unidirectional anisotropy in a ferromagnetâ€“antiferromagnet bilayer by keV-He ion bombardment. Journal of Magnetism and Magnetic Materials, 2005, 293, 849-853.	2.3	20
52	Domain propagation in He-ion-bombarded magnetic wires with opposite exchange bias. Journal of Applied Physics, 2005, 97, 10K102.	2.5	34
53	Postannealing of magnetic tunnel junctions with ion-bombardment-modified exchange bias. Applied Physics Letters, 2005, 86, 152102.	3.3	19
54	On the origin of ion bombardment induced exchange bias modifications in polycrystalline layers. Journal Physics D: Applied Physics, 2005, 38, 801-806.	2.8	44

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55	X-ray absorption and magnetic circular dichroism studies of ion-bombarded ferromagnet-antiferromagnet bilayers. Physical Review B, 2004, 70, .	3.2	10
56	Soft X-ray resonant magnetic reflection investigations of FeMn/Co/Cu/Co spin valves modified by He-ion bombardment. Physica B: Condensed Matter, 2004, 345, 185-188.	2.7	5
57	In-plane magnetic pattern separation in NiFe/NiO and Co/NiO exchange biased bilayers investigated by magnetic force microscopy. Journal of Magnetism and Magnetic Materials, 2004, 280, 369-376.	2.3	34
58	Ion irradiation of exchange bias systems for magnetic sensor applications. Applied Physics A: Materials Science and Processing, 2003, 77, 51-56.	2.3	29
59	Exchange anisotropy modification in NiO/NiFe bilayers by ion bombardment. Journal of Magnetism and Magnetic Materials, 2003, 263, 275-281.	2.3	29
60	Influence of ion bombardment on transport properties and exchange bias in magnetic tunnel junctions. Journal of Applied Physics, 2003, 94, 5556-5558.	2.5	23
61	Alteration of exchange anisotropy and magnetoresistance in Co/Cu/Co/FeMn spin valves by ion bombardment. Journal of Applied Physics, 2003, 94, 5925-5929.	2.5	18
62	Tuning exchange bias and coercive fields in ferromagnet/antiferromagnet bilayers with ion irradiation. Journal of Applied Physics, 2002, 91, 6896.	2.5	39
63	Magnetization Reversal of Exchange Bias Double Layers Magnetically Patterned by Ion Irradiation. Physica Status Solidi A, 2002, 189, 439-447.	1.7	32
64	Magnetic micropatterning of FeNi/FeMn exchange bias bilayers by ion irradiation. Journal of Applied Physics, 2001, 89, 6606-6608.	2.5	58
65	Local manipulation and reversal of the exchange bias field by ion irradiation in FeNi/FeMn double layers. Physical Review B, 2001, 63, .	3.2	135
66	Modification of the exchange bias effect by He ion irradiation. IEEE Transactions on Magnetics, 2000, 36, 2647-2649.	2.1	25
67	Suppression of exchange bias by ion irradiation. Applied Physics Letters, 2000, 76, 1057-1059.	3.3	97
68	CXS: Coherent X-ray scattering at the UE49-SGM at BESSY II. Journal of Large-scale Research Facilities JLSRF, 0, 2, A56.	0.0	2