Ulf Wiedwald

List of Publications by Year
in descending order

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116 papers	3,184 citations	126907 33 h-index	197818 49 g-index
118 all docs	118 docs citations	118 times ranked	4500 citing authors

#	Article	IF	Citations
1	Magnetic phase diagram of (Mo_{2/3}RE_{1/3})₂AlC, RE = Tb and Dy, studied by magnetization, specific heat, and neutron diffraction analysis. Journal of Physics Condensed Matter, 2022, 34, 215801.	1.8	1
2	Cobalt Ferrite Nanoparticles for Tumor Therapy: Effective Heating versus Possible Toxicity. Nanomaterials, 2022, 12, 38.	4.1	19
3	Ion Implantation Enhanced Exfoliation Efficiency of V₂AlC Single Crystals: Implications for Large V₂CT_z Nanosheet Production. ACS Applied Nano Materials, 2022, 5, 8029-8037.	5.0	1
4	From MAX Phase Carbides to Nitrides: Synthesis of V₂GaC, V₂GaN, and the Carbonitride V₂GaC_{1â€“x}N_x. Inorganic Chemistry, 2022, 61, 10634-10641.	4.0	11
5	Beyond Solid Solution Highâ€Entropy Alloys: Tailoring Magnetic Properties via Spinodal Decomposition. Advanced Functional Materials, 2021, 31, 2007668.	14.9	51
6	Limited Elemental Mixing in Nanoparticles Generated by Ultrashort Pulse Laser Ablation of AgCu Bilayer Thin Films in a Liquid Environment: Atomistic Modeling and Experiments. Journal of Physical Chemistry C, 2021, 125, 2132-2155.	3.1	24
7	Structure determination and magnetic properties of the Mn-doped MAX phase Cr₂GaC. Materials Chemistry Frontiers, 2021, 5, 6082-6091.	5.9	12
8	Magnetic Nanoparticles as a Tool for Remote DNA Manipulations at a Single-Molecule Level. ACS Applied Materials & Interfaces, 2021, 13, 14458-14469.	8.0	14
9	Formation of Coâ€“Au Coreâ€“Shell Nanoparticles with Thin Gold Shells and Soft Magnetic Îµ-Cobalt Cores Ruled by Thermodynamics and Kinetics. Journal of Physical Chemistry C, 2021, 125, 9534-9549.	3.1	25
10	Long-Range Ordering Effects in Magnetic Nanoparticles. ACS Applied Materials & Interfaces, 2021, 13, 21602-21612.	8.0	16
11	Pulsed laser deposition of epitaxial Cr₂AlC MAX phase thin films on MgO(111) and Al₂O₃(0001). Materials Research Letters, 2021, 9, 343-349.	8.7	8
12	Optical and magneto-optical properties of epitaxial Mn2GaC MAX phase thin film. Journal of Magnetism and Magnetic Materials, 2021, 528, 167803.	2.3	6
13	Magnetic Nanoprobes for Spatio-Mechanical Manipulation in Single Cells. Nanomaterials, 2021, 11, 2267.	4.1	4
14	Room temperature synthesized solid solution AuFe nanoparticles and their transformation into Au/Fe Janus nanocrystals. Nanoscale, 2021, 13, 10402-10413.	5.6	8
15	2D Molybdenum Carbide MXenes for Enhanced Selective Detection of Humidity in Air. Advanced Materials, 2021, 33, e2104878.	21.0	46
16	Phase Stability of Nanolaminated Epitaxial (Cr_{1â€“x}Fe_x)₂AlC MAX Phase Thin Films on MgO(111) and Al₂O₃(0001) for Use as Conductive Coatings. ACS Applied Nano Materials, 2021, 4, 13761-13770.	5.0	6
17	The effect of the composition and pressure on the phase stability and electronic, magnetic, and elastic properties of M₂AX (M = Mn, Fe; A = Al, Ga, Si, Ge; X = C, N) phases. Physical Chemistry Chemical Physics, 2021, 23, 26376-26384.	2.8	5
18	Magnetic and Electronic Properties of Highly Mn-Doped Î²-NaGdF₄ and Î²-NaEuF₄ Nanoparticles with a Narrow Size Distribution. Journal of Physical Chemistry C, 2020, 124, 18194-18202.	3.1	9

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19	Ptychographic imaging and micromagnetic modeling of thermal melting of nanoscale magnetic domains in antidot lattices. AIP Advances, 2020, 10, 125122.	1.3	3
20	Unravelling the nucleation, growth, and faceting of magnetiteâ€“gold nanohybrids. Journal of Materials Chemistry B, 2020, 8, 3886-3895.	5.8	5
21	Temperature-controlled magnetic nanoparticles hyperthermia inhibits primary tumor growth and metastases dissemination. Nanomedicine: Nanotechnology, Biology, and Medicine, 2020, 25, 102171.	3.3	53
22	Manipulation of the Size and Phase Composition of Yttrium Iron Garnet Nanoparticles by Pulsed Laser Post-Processing in Liquid. Molecules, 2020, 25, 1869.	3.8	8
23	Direct measurement of anisotropic conductivity in a nanolaminated (Mn0.5Cr0.5)2GaC thin film. Applied Physics Letters, 2019, 115, 094101.	3.3	9
24	Long-term stability and thickness dependence of magnetism in thin (Cr0.5Mn0.5)2GaC MAX phase films. Materials Research Letters, 2019, 7, 159-163.	8.7	12
25	Shell-ferromagnetism and decomposition in off-stoichiometric Ni50Mn50â€“xSbx Heuslers. Journal of Applied Physics, 2019, 125, .	2.5	9
26	Solâ€“gel based synthesis and enhanced processability of MAX phase Cr₂GaC. Journal of Materials Chemistry C, 2019, 7, 6034-6040.	5.5	30
27	Atomically Layered and Ordered Rare-Earth i-MAX Phases: A New Class of Magnetic Quaternary Compounds. Chemistry of Materials, 2019, 31, 2476-2485.	6.7	89
28	Large uniaxial magnetostriction with sign inversion at the first order phase transition in the nanolaminated Mn2GaC MAX phase. Scientific Reports, 2018, 8, 2637.	3.3	42
29	Magnetic properties and structural characterization of layered (Cr0.5Mn0.5)2AuC synthesized by thermally induced substitutional reaction in (Cr0.5Mn0.5)2GaC. APL Materials, 2018, 6, .	5.1	25
30	Structural, magnetic and electrical transport properties of non-conventionally prepared MAX phases V₂AlC and (V/Mn)₂AlC. Materials Chemistry Frontiers, 2018, 2, 483-490.	5.9	36
31	Genetically Controlled Lysosomal Entrapment of Superparamagnetic Ferritin for Multimodal and Multiscale Imaging and Actuation with Low Tissue Attenuation. Advanced Functional Materials, 2018, 28, 1706793.	14.9	15
32	Size-selected Fe3O4â€“Au hybrid nanoparticles for improved magnetism-based theranostics. Beilstein Journal of Nanotechnology, 2018, 9, 2684-2699.	2.8	32
33	Magnetite-Gold nanohybrids as ideal all-in-one platforms for theranostics. Scientific Reports, 2018, 8, 11295.	3.3	77
34	Magnetic Fe@FeOx, Fe@C and Î±-Fe2O3 Single-Crystal Nanoblends Synthesized by Femtosecond Laser Ablation of Fe in Acetone. Nanomaterials, 2018, 8, 631.	4.1	33
35	Formation Mechanism of Laser-Synthesized Iron-Manganese Alloy Nanoparticles, Manganese Oxide Nanosheets and Nanofibers. Particle and Particle Systems Characterization, 2017, 34, 1600225.	2.3	36
36	Shell-ferromagnetic precipitation in martensitic off-stoichiometric Ni-Mn-In Heusler alloys produced by temper-annealing under magnetic field. Acta Materialia, 2017, 127, 117-123.	7.9	43

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37	Controlling the conductivity of Ti₃C₂MXenes by inductively coupled oxygen and hydrogen plasma treatment and humidity. RSC Advances, 2017, 7, 13097-13103.	3.6	79
38	Magnetic properties of nanolaminated (Mo0.5Mn0.5)2GaC MAX phase. Journal of Applied Physics, 2017, 121, .	2.5	31
39	Enhanced spinâ€“orbit coupling in tetragonally strained Feâ€“Coâ€“B films. Journal of Physics Condensed Matter, 2017, 29, 275802.	1.8	11
40	Doubling of the magnetic energy product in ferromagnetic nanowires at ambient temperature by capping their tips with an antiferromagnet. Nanotechnology, 2017, 28, 295402.	2.6	7
41	Ultrasmall Yttrium Iron Garnet Nanoparticles with High Coercivity at Low Temperature Synthesized by Laser Ablation and Fragmentation of Pressed Powders. ChemPhysChem, 2017, 18, 1125-1132.	2.1	26
42	Magnetic switching of nanoscale antidot lattices. Beilstein Journal of Nanotechnology, 2016, 7, 733-750.	2.8	15
43	Orientation of FePt nanoparticles on top of a-SiO₂/Si(001), MgO(001) and sapphire(0001): effect of thermal treatments and influence of substrate and particle size. Beilstein Journal of Nanotechnology, 2016, 7, 591-604.	2.8	5
44	Arrangement at the nanoscale: Effect on magnetic particle hyperthermia. Scientific Reports, 2016, 6, 37934.	3.3	131
45	Thin film synthesis and characterization of a chemically ordered magnetic nanolaminate (V,Mn)3GaC2. APL Materials, 2016, 4, .	5.1	28
46	A versatile large-scale and green process for synthesizing magnetic nanoparticles with tunable magnetic hyperthermia features. RSC Advances, 2016, 6, 53107-53117.	3.6	33
47	Combined first-order reversal curve and x-ray microscopy investigation of magnetization reversal mechanisms in hexagonal antidot lattices. Physical Review B, 2016, 93, .	3.2	24
48	Optimum nanoscale design in ferrite based nanoparticles for magnetic particle hyperthermia. RSC Advances, 2016, 6, 72918-72925.	3.6	17
49	Geometric control of the magnetization reversal in antidot lattices with perpendicular magnetic anisotropy. Physical Review B, 2016, 93, .	3.2	33
50	Enhanced magnetocrystalline anisotropy of Fe₃₀Co₇₀nanowires by Cu additives and annealing. Nanotechnology, 2016, 27, 365704.	2.6	9
51	Solvent-surface interactions control the phase structure in laser-generated iron-gold core-shell nanoparticles. Scientific Reports, 2016, 6, 23352.	3.3	113
52	Tuning the magnetism of ferrite nanoparticles. Journal of Magnetism and Magnetic Materials, 2016, 415, 20-23.	2.3	30
53	Splenic red pulp macrophages are intrinsically superparamagnetic and contaminate magnetic cell isolates. Scientific Reports, 2015, 5, 12940.	3.3	41
54	Structure-Correlated Exchange Anisotropy in Oxidized Co₈₀Ni₂₀ Nanorods. Chemistry of Materials, 2015, 27, 4015-4022.	6.7	21

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55	Perpendicular magnetisation from in-plane fields in nano-scaled antidot lattices. Nanotechnology, 2015, 26, 225203.	2.6	19
56	Magnetic Anisotropy in the (Cr_{0.5}Mn_{0.5})₂GaC MAX Phase. Materials Research Letters, 2015, 3, 156-160.	8.7	43
57	Combined FORC and X-ray microscopy study of magnetisation reversal in antidot lattices. , 2015, , .		0
58	Magnetic hardening of Fe₃₀Co₇₀nanowires. Nanotechnology, 2015, 26, 415704.	2.6	32
59	Role of developing L1₀chemical order on the (0â€‰0â€‰1)-texture formation of (Fe<sub>1) Tj ETQq1 1 0.784314 rgB Applied Physics, 2015, 48, 085001.	2.8	5
60	Solid solution magnetic FeNi nanostrandâ€“polymer composites by connecting-coarsening assembly. Journal of Materials Chemistry C, 2015, 3, 10699-10704.	5.5	44
61	Growth modes and epitaxy of FeAl thin films on a-cut sapphire prepared by pulsed laser and ion beam assisted deposition. Journal of Applied Physics, 2014, 115, 023507.	2.5	6
62	Bolometer detection of magnetic resonances in nanoscaled objects. Nanotechnology, 2014, 25, 425302.	2.6	3
63	Single coreâ€“shell nanoparticle probes for non-invasive magnetic force microscopy. Nanotechnology, 2014, 25, 255501.	2.6	8
64	Electronic structure and soft-X-ray-induced photoreduction studies of iron-based magnetic polyoxometalates of type {(M)M5}12FeIII30 (M = MoVI, WVI). Dalton Transactions, 2013, 42, 7924.	3.3	14
65	Extending the 3Ï‰ method: Thermal conductivity characterization of thin films. Review of Scientific Instruments, 2013, 84, 084904.	1.3	22
66	Exchange bias of Ni nanoparticles embedded in an antiferromagnetic IrMn matrix. Nanotechnology, 2013, 24, 455702.	2.6	23
67	Super spin-glass state and exchange bias in Fe/CoO hybrid nanostructures. Nanotechnology, 2013, 24, 155703.	2.6	9
68	Atmospheric-pressure Microwave Torch Discharge Generated Î³-Fe2O3 Nanopowder. Physics Procedia, 2013, 44, 206-212.	1.2	8
69	Geometry-induced spin-ice structures prepared by self-organization on the nanoscale. Nanotechnology, 2013, 24, 055305.	2.6	12
70	Switching modes in easy and hard axis magnetic reversal in a self-assembled antidot array. Nanotechnology, 2013, 24, 465709.	2.6	18
71	Structural and thermoelectric properties of TMGa3 (TM = Fe, Co) thin films. Beilstein Journal of Nanotechnology, 2013, 4, 461-466.	2.8	2
72	Towards quantitative magnetic force microscopy: theory and experiment. New Journal of Physics, 2012, 14, 043044.	2.9	36

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73	Formation of Highly Ordered Alloy Nanoparticles Based on Precursor-Filled Latex Spheres. Chemistry of Materials, 2012, 24, 1048-1054.	6.7	20
74	Tuning the properties of magnetic thin films by interaction with periodic nanostructures. Beilstein Journal of Nanotechnology, 2012, 3, 831-842.	2.8	9
75	Precise Chemical, Electronic, and Magnetic Structure of Binuclear Complexes Studied by Means of X-ray Spectroscopies and Theoretical Methods. Journal of Physical Chemistry C, 2011, 115, 25030-25039.	3.1	3
76	Magnetic Ground-State and Systematic X-ray Photoreduction Studies of an Iron-Based Star-Shaped Complex. Journal of Physical Chemistry Letters, 2011, 2, 1491-1496.	4.6	9
77	Nanoscaled alloy formation from self-assembled elemental Co nanoparticles on top of Pt films. Beilstein Journal of Nanotechnology, 2011, 2, 473-485.	2.8	5
78	Effect of large mechanical stress on the magnetic properties of embedded Fe nanoparticles. Beilstein Journal of Nanotechnology, 2011, 2, 268-275.	2.8	19
79	Thermally driven solid-phase epitaxy of laser-ablated amorphous AlFe films on (0001)-oriented sapphire single crystals. Applied Physics A: Materials Science and Processing, 2011, 102, 725-730.	2.3	17
80	Identification of magnetic properties of few nm sized FePt crystalline particles by characterizing the intrinsic atom order using aberration corrected S/TEM. Ultramicroscopy, 2010, 110, 820-825.	1.9	12
81	Planar Au/TiO₂ Model Catalysts: Fabrication, Characterization and Catalytic Activity. ChemPhysChem, 2010, 11, 1430-1437.	2.1	16
82	Dissolution kinetics of Si into Ge (111) substrate on the nanoscale. Thin Solid Films, 2010, 519, 952-955.	1.8	2
83	Preparation, properties and applications ofÂmagneticÂnanoparticles. Beilstein Journal of Nanotechnology, 2010, 1, 21-23.	2.8	13
84	Preparation and characterization of supported magnetic nanoparticles prepared by reverse micelles. Beilstein Journal of Nanotechnology, 2010, 1, 24-47.	2.8	46
85	Fabrication of two-dimensional Au@FePt core-shell nanoparticle arrays by photochemical metal deposition. Applied Physics Letters, 2010, 96, .	3.3	21
86	Monodispersed NiO nanoflowers with anomalous magnetic behavior. Nanotechnology, 2010, 21, 425702.	2.6	33
87	Narrowly Size Distributed Zinc-Containing Poly(acrylamide) Latexes via Inverse Miniemulsion Polymerization. Macromolecules, 2010, 43, 3294-3305.	4.8	37
88	Fe oxidation versus Pt segregation in FePt nanoparticles and thin films. Nanotechnology, 2009, 20, 285706.	2.6	40
89	FePt Nanorods and Nanowires for Novel Ferrofluids. Solid State Phenomena, 2009, 154, 89-94.	0.3	1
90	Two-Dimensional Assembly of Magnetic Binuclear Complexes: a Scanning Tunneling Microscopy Study. Langmuir, 2009, 25, 13606-13613.	3.5	4

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91	Synthesis, Thermal Stability and Properties of ZnO₂ Nanoparticles. Journal of Physical Chemistry C, 2009, 113, 1320-1324.	3.1	79
92	Transition from anomalous kinetics toward Fickian diffusion for Si dissolution into amorphous Ge. Applied Physics Letters, 2008, 92, .	3.3	23
93	Exploring structural dependence of magnetic properties in FePt nanoparticle by Cs-corrected HRTEM. , 2008, , 111-112.		0
94	Magnetic moment of Fe in oxide-free FePt nanoparticles. Physical Review B, 2007, 76, .	3.2	41
95	Lowering of the L10 ordering temperature of FePt nanoparticles by He+ ion irradiation. Applied Physics Letters, 2007, 90, 062508.	3.3	66
96	Controlling the Interparticle Spacing of Auâ^'Salt Loaded Micelles and Au Nanoparticles on Flat Surfaces. Langmuir, 2007, 23, 10150-10155.	3.5	36
97	Nanostructured Pt/GC Model Electrodes Prepared by the Deposition of Metal-Salt-Loaded Micelles. Langmuir, 2007, 23, 5795-5801.	3.5	21
98	A Micellar Approach to Magnetic Ultrahigh-Density Data-Storage Media: Extending the Limits of Current Colloidal Methods. Advanced Materials, 2007, 19, 406-410.	21.0	103
99	Local density of states effects at the metal-molecule interfaces in a molecular device. Nature Materials, 2006, 5, 394-399.	27.5	98
100	Enhanced Orbital Magnetism inFe50Pt50Nanoparticles. Physical Review Letters, 2006, 97, 117201.	7.8	150
101	Magnetic response of nanostructured systems: A ferromagnetic resonance investigation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 796-803.	2.1	3
102	Using hysteresis behaviour to determine the anisotropy and interactions in complex self-assembled Co metallic nanoparticle systems. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 161-164.	2.3	2
103	From Colloidal Co/CoO Core/Shell Nanoparticles to Arrays of Metallic Nanomagnets: Surface Modification and Magnetic Properties. ChemPhysChem, 2005, 6, 2522-2526.	2.1	39
104	Effect of an oxidic overlayer on the magnetism of Co nanoparticles. Phase Transitions, 2005, 78, 85-104.	1.3	28
105	Magnetic response of nanostructured systems: A ferromagnetic resonance investigation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 796.	2.1	2
106	Composition-dependent ratio of orbital-to-spin magnetic moment in structurally disorderedFexPt1â^'xnanoparticles. Physical Review B, 2004, 69, .	3.2	48
107	Frequency- and Temperature-Dependent Ferromagnetic Resonance of Co/CoO Core-Shell Nanoparticles. Materials Research Society Symposia Proceedings, 2004, 818, 194.	0.1	5
108	Temperature dependence of exchange anisotropy in monodisperse cobalt nanoparticles with a cobalt oxide shell. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1508-1509.	2.3	31

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109	Local structure of monodisperse Co nanoparticles. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1207-E1209.	2.3	0
110	Effective exchange interaction in a quasi-two-dimensional self-assembled nanoparticle array. Physical Review B, 2004, 70, .	3.2	15
111	Ratio of orbital-to-spin magnetic moment in Co core-shell nanoparticles. Physical Review B, 2003, 68, .	3.2	62
112	Structure and Magnetism of Co and CoAg Nanocrystals. Materials Research Society Symposia Proceedings, 2002, 721, 1.	0.1	12
113	Magnetic properties of arrays of interacting Co nanocrystals. Journal of Magnetism and Magnetic Materials, 2002, 240, 40-43.	2.3	48
114	Magnetization and Magnetic Anisotropy of Co/W Multilayers. Physica Status Solidi (B): Basic Research, 2001, 225, 449-457.	1.5	9
115	Ferromagnetic resonance of monodisperse Co particles. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1773-1776.	2.1	59
116	Synthesis, phase purification and magnetic characterization of the (Cr1â˜'x, Mnx)2AlC MAX-phase. Journal of Materials Chemistry C, 0, , .	5.5	3