

# Andreas HÃ¼tten

## List of Publications by Year in descending order

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Version: 2024-02-01

81  
papers

2,257  
citations

361045

20  
h-index

223531

46  
g-index

82  
all docs

82  
docs citations

82  
times ranked

3838  
citing authors

#	ARTICLE	IF	CITATIONS
1	Applications beyond data storage. Nature Materials, 2005, 4, 725-726.	13.3	485
2	Spin polarization in half-metals probed by femtosecond spin excitation. Nature Materials, 2009, 8, 56-61.	13.3	223
3	New magnetic nanoparticles for biotechnology. Journal of Biotechnology, 2004, 112, 47-63.	1.9	148
4	The homogeneous ice nucleation rate of water droplets produced in a microfluidic device and the role of temperature uncertainty. Physical Chemistry Chemical Physics, 2013, 15, 5873.	1.3	132
5	Giant Magnetoresistance: Basic Concepts, Microstructure, Magnetic Interactions and Applications. Sensors, 2016, 16, 904.	2.1	125
6	Ferromagnetic FeCo nanoparticles for biotechnology. Journal of Magnetism and Magnetic Materials, 2005, 293, 93-101.	1.0	106
7	Stability and thermal reaction of GMR NiFe/Cu thin films. Acta Materialia, 2005, 53, 3383-3393.	3.8	59
8	Review and outlook: from single nanoparticles to self-assembled monolayers and granular GMR sensors. Beilstein Journal of Nanotechnology, 2010, 1, 75-93.	1.5	56
9	Novel carbon nanosheets as support for ultrahigh-resolution structural analysis of nanoparticles. Ultramicroscopy, 2008, 108, 885-892.	0.8	51
10	Heusler nanoparticles for spintronics and ferromagnetic shape memory alloys. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2014, 32, .	0.6	45
11	Magnetic Properties of Electrospun Magnetic Nanofiber Mats after Stabilization and Carbonization. Materials, 2020, 13, 1552.	1.3	38
12	Magnetic Field Induced Assembly of Highly Ordered Two-Dimensional Particle Arrays. Langmuir, 2010, 26, 19225-19229.	1.6	37
13	Natural and synthetic nanopores directing osteogenic differentiation of human stem cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 17, 319-328.	1.7	34
14	Synthesis and Characterization of Photoswitchable Fluorescent SiO <sub>2</sub> Nanoparticles. Chemistry - A European Journal, 2012, 18, 814-821.	1.7	33
15	Experimental realization of a semiconducting full-Heusler compound: $\text{Fe}_2\text{TiSi}$ . Physical Review B, 2014, 90, .	1.1	33
16	Circular dichroism and electron microscopy studies in vitro of 33-mer gliadin peptide revealed secondary structure transition and supramolecular organization. Biopolymers, 2014, 101, 96-106.	1.2	31
17	Large supramolecular structures of 33-mer gliadin peptide activate toll-like receptors in macrophages. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1417-1427.	1.7	29
18	Ultrahigh Ionic Exclusion through Carbon Nanomembranes. Advanced Materials, 2020, 32, e1907850.	11.1	29

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19	Reliable stabilization and functionalization of nanoparticles through tridentate thiolate ligands. <i>Chemical Communications</i> , 2006, , 3693-3695.	2.2	25
20	Inverted spin polarization of Heusler alloys for spintronic devices. <i>Applied Physics Letters</i> , 2006, 89, 012502.	1.5	23
21	Interaction of adult human neural crest-derived stem cells with a nanoporous titanium surface is sufficient to induce their osteogenic differentiation. <i>Stem Cell Research</i> , 2014, 13, 98-110.	0.3	20
22	Quantitative separation of the anisotropic magnetothermopower and planar Nernst effect by the rotation of an in-plane thermal gradient. <i>Scientific Reports</i> , 2017, 7, 40586.	1.6	20
23	Chemical and Morphological Transition of Poly(acrylonitrile)/Poly(vinylidene Fluoride) Blend Nanofibers during Oxidative Stabilization and Incipient Carbonization. <i>Nanomaterials</i> , 2020, 10, 1210.	1.9	20
24	Continuous-flow particle guiding based on dipolar coupled magnetic superstructures in rotating magnetic fields. <i>Lab on A Chip</i> , 2013, 13, 920.	3.1	19
25	Giant magnetoresistance and magnetic aspects in granular structures. <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 262, 23-31.	1.0	18
26	Nano-antenna-assisted harmonic generation. <i>Applied Physics B: Lasers and Optics</i> , 2013, 113, 75-79.	1.1	18
27	Thickness dependent exchange bias in martensitic epitaxial Ni-Mn-Sn thin films. <i>AIP Advances</i> , 2013, 3, .	0.6	17
28	Proximity-Induced Superconductivity and Quantum Interference in Topological Crystalline Insulator SnTe Thin-Film Devices. <i>Nano Letters</i> , 2018, 18, 1264-1268.	4.5	17
29	Bone Regeneration: A Novel Osteoinductive Function of Spongostan by the Interplay between Its Nano- and Microtopography. <i>Cells</i> , 2020, 9, 654.	1.8	17
30	Self-ordering of nanoparticles in magneto-organic composite films. <i>Physical Review B</i> , 2008, 78, .	1.1	15
31	Coupling Phenomena in Magnetocaloric Materials. <i>Energy Technology</i> , 2018, 6, 1429-1447.	1.8	15
32	The Therapeutic Effect of 1,8-Cineol on Pathogenic Bacteria Species Present in Chronic Rhinosinusitis. <i>Frontiers in Microbiology</i> , 2019, 10, 2325.	1.5	14
33	Preparation of Terpenoid-Invasomes with Selective Activity against <i>S. aureus</i> and Characterization by Cryo Transmission Electron Microscopy. <i>Biomedicines</i> , 2020, 8, 105.	1.4	14
34	Molecular Permeation in Freestanding Bilayer Silica. <i>Nano Letters</i> , 2022, 22, 1287-1293.	4.5	14
35	Electromagnetic Interference Shielding with Electrospun Nanofiber Mats – A Review of Production, Physical Properties and Performance. <i>Fibers</i> , 2022, 10, 47.	1.8	14
36	Microstructural investigation of ternary alloyed magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 293, 151-161.	1.0	12

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37	Lab-on-a-Chip Magneto-Immunoassays: How to Ensure Contact between Superparamagnetic Beads and the Sensor Surface. <i>Biosensors</i> , 2013, 3, 327-340.	2.3	12
38	Identification of Microorganisms from Several Surfaces by MALDI-TOF MS: <i>P. aeruginosa</i> Is Leading in Biofilm Formation. <i>Microorganisms</i> , 2021, 9, 992.	1.6	12
39	Stabilization and Carbonization of PAN Nanofiber Mats Electrospun on Metal Substrates. <i>Journal of Carbon Research</i> , 2021, 7, 12.	1.4	12
40	Processing, structure, and property relationships in Nd-Fe-B magnets. <i>Jom</i> , 1992, 44, 11-15.	0.9	11
41	On the direct employment of dipolar particle interaction in microfluidic systems. <i>Microfluidics and Nanofluidics</i> , 2012, 13, 543-554.	1.0	11
42	Interfacial Thermal Resistance in Magnetocaloric Epoxy-Bonded La-Fe-Co-Si Composites. <i>Energy Technology</i> , 2018, 6, 1448-1452.	1.8	11
43	Extremely robust photocurrent generation of titanium dioxide photoanodes bio-sensitized with recombinant microalgal light-harvesting proteins. <i>Scientific Reports</i> , 2019, 9, 2109.	1.6	11
44	Self organization of magnetic nanoparticles: A polarized grazing incidence small angle neutron scattering and grazing incidence small angle x-ray scattering study. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	10
45	Influence of the synthetic polypeptide c25-mms6 on cobalt ferrite nanoparticle formation. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	10
46	Nano-antennae assisted emission of extreme ultraviolet radiation. <i>Annalen Der Physik</i> , 2014, 526, 119-134.	0.9	10
47	Magnetic nanoparticles meet microfluidics. <i>Materials Today: Proceedings</i> , 2017, 4, S160-S167.	0.9	9
48	From Nanoscale Liquid Spheres to Anisotropic Crystalline Particles of Tin: Decomposition of Decamethylstannocene in Organic Solvents. <i>Small</i> , 2011, 7, 3075-3086.	5.2	8
49	Oriented attachment explains cobalt ferrite nanoparticle growth in bioinspired syntheses. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 210-218.	1.5	8
50	Elucidation of the strong effect of an interfacial monolayer on magnetoresistance in giant magnetoresistive devices with current perpendicular to the plane. <i>Physical Review B</i> , 2021, 103, .	1.1	8
51	Pepsin Digest of Gliadin Forms Spontaneously Amyloid-Like Nanostructures Influencing the Expression of Selected Pro-inflammatory, Chemoattractant, and Apoptotic Genes in Caco-2 Cells: Implications for Gluten-Related Disorders. <i>Molecular Nutrition and Food Research</i> , 2021, 65, e2100200.	1.5	8
52	Bacterial Biofilm Formation on Nano-Copper Added PLA Suited for 3D Printed Face Masks. <i>Microorganisms</i> , 2022, 10, 439.	1.6	8
53	Positioning and Aligning Electrospun PAN Fibers by Conductive and Dielectric Substrate Patterns. <i>Macromolecular Symposia</i> , 2021, 395, 2000213.	0.4	7
54	Modeling of Nanoparticulate Magnetoresistive Systems and the Impact on Molecular Recognition. <i>Sensors</i> , 2015, 15, 9251-9264.	2.1	6

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55	Magnetic Tracking of Protein Synthesis in Microfluidic Environments—Challenges and Perspectives. <i>Nanomaterials</i> , 2019, 9, 585.	1.9	6
56	Reviewing Magnetic Particle Preparation: Exploring the Viability in Biosensing. <i>Sensors</i> , 2020, 20, 4596.	2.1	6
57	X-Ray Absorption and Magnetic Circular Dichroism Studies of Co <sub>2</sub> FeAl in Magnetic Tunnel Junctions. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 1925-1928.	1.2	5
58	Interplay of strain and interdiffusion in Heusler alloy bilayers. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 321-325.	1.2	5
59	Uniform growth of clusters of magnetic nanoparticles in a rotating magnetic field. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	4
60	Ionic Additives and Weak Magnetic Fields in the Thermal Decomposition of Octacarbonyldicobalt — Tools To Control the Morphology of Cobalt Nanoparticles. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 198-202.	1.0	4
61	How to enable bulk-like martensitic transformation in epitaxial films. <i>AIP Advances</i> , 2017, 7, 056428.	0.6	4
62	The Influence of Martensitic Intercalations in Magnetic Shape Memory NiCoMnAl Multilayered Films. <i>Entropy</i> , 2021, 23, 462.	1.1	4
63	Analysis of Monodispersed FeCo Alloyed Nanoparticles by High-Resolution Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2003, 9, 196-197.	0.2	3
64	Demagnetization experiments on frozen ferrofluids. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 3596-3602.	0.8	3
65	Mismatch-induced recrystallization of giant magneto-resistance multilayer systems. <i>Applied Physics Letters</i> , 2006, 88, 023120.	1.5	3
66	Chemical and Magnetic Interface Properties of Tunnel Junctions With Co <sub>2</sub> MnSi/Co <sub>2</sub> FeSi Multilayer Electrode Showing Large Tunneling Magnetoresistance. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 2806-2808.	1.2	3
67	Magnetic Tunnel Junctions. <i>Springer Tracts in Modern Physics</i> , 2008, , 291-333.	0.1	3
68	Co <sub>2</sub> FeSi Based Magnetic Tunnel Junctions With BaO Barrier. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 3825-3828.	1.2	3
69	DNA-Mediated Stabilization of Self-Assembling Bead Monolayers for Microfluidic Applications. <i>Particle and Particle Systems Characterization</i> , 2015, 32, 583-587.	1.2	3
70	Thickness-Dependent Permanent Magnet Properties of Zr <sub>2</sub> Co <sub>11</sub> Thin Films Grown on Si with Pt Underlayer. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 2654-2659.	1.1	3
71	Gadolinium thin films as benchmark for magneto-caloric thin films. <i>AIP Advances</i> , 2017, 7, 056429.	0.6	3
72	Thickness-Varied Carbon Nanomembranes from Polycyclic Aromatic Hydrocarbons. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 9433-9441.	4.0	3

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73	In-situ TEM annealing of amorphous Fe-24at.%W coatings and the effect of crystallization on hardness. Journal of Materials Science, 2021, 56, 4006-4012.	1.7	2
74	Heusler Compounds Go Nano. Springer Series in Materials Science, 2016, , 111-132.	0.4	2
75	Anomalous magnetoresistance and Hall effect in amorphous Pt/TbFeCo thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 283, 115785.	1.7	2
76	Formation of magnetically anisotropic composite films at low magnetic fields. Smart Materials and Structures, 2017, 26, 045018.	1.8	1
77	Nano Scaled Checkerboards: A Long Range Ordering in NiCoMnAl Magnetic Shape Memory Alloy Thin Films with Martensitic Intercalations. Applied Sciences (Switzerland), 2022, 12, 1748.	1.3	1
78	Spin- and Stress-Dependent Electrical Transport in Nanoparticle Supercrystals: Sensing Elastic Properties of Organic Tunnel Barriers via Tunneling Magnetoresistance. Advanced Electronic Materials, 0, , 2200082.	2.6	1
79	Heusler Alloyed Electrodes Integrated in Magnetic Tunnel-Junctions. , 0, , 241-265.		0
80	Hydrogen-plasma-induced magnetocrystalline anisotropy ordering in self-assembled magnetic nanoparticle monolayers. Beilstein Journal of Nanotechnology, 2013, 4, 164-172.	1.5	0
81	Gold Bowtie Nanoantennas Generating UV. , 2014, , .		0