Kornelius Nielsch

List of Publications by Year
in descending order

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423 papers	22,051 citations	14614 66 h-index	11581 135 g-index
439 all docs	439 docs citations	439 times ranked	18794 citing authors

#	Article	IF	Citations
1	Hexagonal pore arrays with a 50â€“420 nm interpore distance formed by self-organization in anodic alumina. Journal of Applied Physics, 1998, 84, 6023-6026.	1.1	1,428
2	Fast fabrication of long-range ordered porous alumina membranes by hard anodization. Nature Materials, 2006, 5, 741-747.	13.3	1,254
3	Self-ordering Regimes of Porous Alumina:â€‰ The 10 Porosity Rule. Nano Letters, 2002, 2, 677-680.	4.5	933
4	Polymer Nanotubes by Wetting of Ordered Porous Templates. Science, 2002, 296, 1997-1997.	6.0	818
5	Synthesis and Surface Engineering of Complex Nanostructures by Atomic Layer Deposition. Advanced Materials, 2007, 19, 3425-3438.	11.1	812
6	Uniform Nickel Deposition into Ordered Alumina Pores by Pulsed Electrodeposition. Advanced Materials, 2000, 12, 582-586.	11.1	787
7	Monocrystalline spinel nanotube fabrication based on the Kirkendall effect. Nature Materials, 2006, 5, 627-631.	13.3	699
8	Hexagonally ordered 100 nm period nickel nanowire arrays. Applied Physics Letters, 2001, 79, 1360-1362.	1.5	528
9	Highly ordered monocrystalline silver nanowire arrays. Journal of Applied Physics, 2002, 91, 3243-3247.	1.1	372
10	Influence of Surface Diffusion on the Formation of Hollow Nanostructures Induced by the Kirkendall Effect:Â The Basic Concept. Nano Letters, 2007, 7, 993-997.	4.5	363
11	Fabrication and Microstructuring of Hexagonally Ordered Two-Dimensional Nanopore Arrays in Anodic Alumina. Advanced Materials, 1999, 11, 483-487.	11.1	264
12	Thermoelectric Devices: A Review of Devices, Architectures, and Contact Optimization. Advanced Materials Technologies, 2018, 3, 1700256.	3.0	259
13	A Template-Based Electrochemical Method for the Synthesis of Multisegmented Metallic Nanotubes. Angewandte Chemie - International Edition, 2005, 44, 6050-6054.	7.2	258
14	Discovery of ZrCoBi based half Heuslers with high thermoelectric conversion efficiency. Nature Communications, 2018, 9, 2497.	5.8	243
15	Hexagonally Arranged Monodisperse Silver Nanowires with Adjustable Diameter and High Aspect Ratio. Chemistry of Materials, 2003, 15, 776-779.	3.2	239
16	Ordered Iron Oxide Nanotube Arrays of Controlled Geometry and Tunable Magnetism by Atomic Layer Deposition. Journal of the American Chemical Society, 2007, 129, 9554-9555.	6.6	232
17	Are Binary Copper Sulfides/Selenides Really New and Promising Thermoelectric Materials?. Advanced Energy Materials, 2014, 4, 1301581.	10.2	227
18	Discovery of TaFeSb-based half-Heuslers with high thermoelectric performance. Nature Communications, 2019, 10, 270.	5.8	227

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19	Self-Ordered Anodic Aluminum Oxide Formed by H₂SO₄ Hard Anodization. ACS Nano, 2008, 2, 302-310.	7.3	222
20	Experimental signatures of the mixed axialâ€“gravitational anomaly in the Weyl semimetal NbP. Nature, 2017, 547, 324-327.	13.7	222
21	Thermoelectric Nanostructures: From Physical Model Systems towards Nanograined Composites. Advanced Energy Materials, 2011, 1, 713-731.	10.2	214
22	Template-Assisted Large-Scale Ordered Arrays of ZnO Pillars for Optical and Piezoelectric Applications. Small, 2006, 2, 561-568.	5.2	209
23	Chemical Aspects of the Candidate Antiferromagnetic Topological Insulator MnBi₂Te₄. Chemistry of Materials, 2019, 31, 2795-2806.	3.2	203
24	Atomic Layer Deposition on Biological Macromolecules:Â Metal Oxide Coating of Tobacco Mosaic Virus and Ferritin. Nano Letters, 2006, 6, 1172-1177.	4.5	200
25	Spin-Wave Quantization in Ferromagnetic Nickel Nanowires. Physical Review Letters, 2002, 89, 027201.	2.9	161
26	Ferromagnetic nanotubes by atomic layer deposition in anodic alumina membranes. Journal of Applied Physics, 2007, 101, 09J111.	1.1	161
27	Improved thermoelectric performance of n-type half-Heusler MCo1-xNixSb (MÂ=ÂHf, Zr). Materials Today Physics, 2017, 1, 24-30.	2.9	148
28	Arrays of vertically aligned and hexagonally arranged ZnO nanowires: a new template-directed approach. Nanotechnology, 2005, 16, 913-917.	1.3	147
29	High density hexagonal nickel nanowire array. Journal of Magnetism and Magnetic Materials, 2002, 249, 234-240.	1.0	139
30	Crossover between two different magnetization reversal modes in arrays of iron oxide nanotubes. Physical Review B, 2008, 77, .	1.1	139
31	Wafer-Scale Ni Imprint Stamps for Porous Alumina Membranes Based on Interference Lithography. Small, 2006, 2, 978-982.	5.2	134
32	A Practical, Selfâ€€Catalytic, Atomic Layer Deposition of Silicon Dioxide. Angewandte Chemie - International Edition, 2008, 47, 6177-6179.	7.2	127
33	Fabrication of monodomain alumina pore arrays with an interpore distance smaller than the lattice constant of the imprint stamp. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 763.	1.6	126
34	Polycrystalline nanopore arrays with hexagonal ordering on aluminum. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 1428-1431.	0.9	124
35	Self-ordering behavior of nanoporous anodic aluminum oxide (AAO) in malonic acid anodization. Nanotechnology, 2007, 18, 475713.	1.3	120
36	Tuning the magnetic anisotropy of Coâ€“Ni nanowires: comparison between single nanowires and nanowire arrays in hard-anodic aluminum oxide membranes. Nanotechnology, 2012, 23, 465709.	1.3	118

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37	Towards tellurium-free thermoelectric modules for power generation from low-grade heat. Nature Communications, 2021, 12, 1121.	5.8	118
38	Multilayered Core/Shell Nanowires Displaying Two Distinct Magnetic Switching Events. Advanced Materials, 2010, 22, 2435-2439.	11.1	111
39	Large Thermoelectric Power Factor Enhancement Observed in InAs Nanowires. Nano Letters, 2013, 13, 4080-4086.	4.5	107
40	Controlled Introduction of Diameter Modulations in Arrayed Magnetic Iron Oxide Nanotubes. ACS Nano, 2009, 3, 3463-3468.	7.3	104
41	Synthesis of Cobalt/Polymer Multilayer Nanotubes. Advanced Engineering Materials, 2005, 7, 217-221.	1.6	101
42	Magnetic properties of template-synthesized cobaltâ^•polymer composite nanotubes. Journal of Applied Physics, 2005, 98, 034318.	1.1	101
43	Modelling hysteresis of interacting nanowires arrays. Physica B: Condensed Matter, 2004, 343, 395-402.	1.3	98
44	Laser-Interference Lithography Tailored for Highly Symmetrically Arranged ZnO Nanowire Arrays. Small, 2007, 3, 76-80.	5.2	95
45	Large anomalous Nernst effect in thin films of the Weyl semimetal Co2MnGa. Applied Physics Letters, 2018, 113, .	1.5	92
46	Magneto-optical properties of nickel nanowire arrays. Applied Physics Letters, 2003, 83, 4547-4549.	1.5	88
47	Enhanced Magnetoâ€Optics and Size Effects in Ferromagnetic Nanowire Arrays. Advanced Materials, 2007, 19, 2643-2647.	11.1	86
48	Tuning the crystallinity of thermoelectric Bi₂Te₃nanowire arrays grown by pulsed electrodeposition. Nanotechnology, 2008, 19, 365701.	1.3	86
49	Low temperature silicon dioxide by thermal atomic layer deposition: Investigation of material properties. Journal of Applied Physics, 2010, 107, .	1.1	86
50	Novel magnetic materials prepared by electrodeposition techniques: arrays of nanowires and multi-layered microwires. Journal of Alloys and Compounds, 2004, 369, 18-26.	2.8	84
51	Micro-thermoelectric devices. Nature Electronics, 2022, 5, 333-347.	13.1	84
52	Experimental evidence for an angular dependent transition of magnetization reversal modes in magnetic nanotubes. Journal of Applied Physics, 2011, 109, .	1.1	82
53	Optimizations of Pulsed Plated p and nâ€type Bi₂Te₃â€Based Ternary Compounds by Annealing in Different Ambient Atmospheres. Advanced Energy Materials, 2013, 3, 95-104.	10.2	77
54	Templated Fabrication of Nanowire and Nanoring Arrays Based on Interference Lithography and Electrochemical Deposition. Advanced Materials, 2006, 18, 2593-2596.	11.1	75

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55	Angular dependence of coercivity in magnetic nanotubes. Nanotechnology, 2007, 18, 445706.	1.3	75
56	Magnetic properties of cylindrical diameter modulated Ni80Fe20 nanowires: interaction and coercive fields. Nanoscale, 2013, 5, 3941.	2.8	75
57	Thermoelectric properties of topological insulator Bi2Te3, Sb2Te3, and Bi2Se3 thin film quantum wells. Applied Physics Letters, 2014, 105, .	1.5	75
58	Metal Membranes with Hierarchically Organized Nanotube Arrays. Chemistry of Materials, 2005, 17, 3325-3327.	3.2	74
59	Thermoelectric Characterization of Bismuth Telluride Nanowires, Synthesized Via Catalytic Growth and Postâ€Annealing. Advanced Materials, 2013, 25, 239-244.	11.1	74
60	Switching behavior of single nanowires inside dense nickel nanowire arrays. IEEE Transactions on Magnetics, 2002, 38, 2571-2573.	1.2	73
61	Magnetic characterization of nickel-rich NiFe nanowires grown by pulsed electrodeposition. Journal of Materials Chemistry, 2012, 22, 8549.	6.7	71
62	Chiral magnetoresistance in the Weyl semimetal NbP. Scientific Reports, 2017, 7, 43394.	1.6	71
63	Uniform Nickel Deposition into Ordered Alumina Pores by Pulsed Electrodeposition. , 2000, 12, 582.		71
64	Patterned growth of aligned ZnO nanowire arrays on sapphire and GaN layers. Superlattices and Microstructures, 2004, 36, 95-105.	1.4	70
65	Integrated microthermoelectric coolers with rapid response time and high device reliability. Nature Electronics, 2018, 1, 555-561.	13.1	70
66	Energy harvesting near room temperature using a thermomagnetic generator with a pretzel-like magnetic flux topology. Nature Energy, 2019, 4, 68-74.	19.8	70
67	Single-crystalline MgAl2O4spinel nanotubes using a reactive and removable MgO nanowire template. Nanotechnology, 2006, 17, 5157-5162.	1.3	69
68	Changes in Morphology and Ionic Transport Induced by ALD SiO₂ Coating of Nanoporous Alumina Membranes. ACS Applied Materials & Interfaces, 2013, 5, 3556-3564.	4.0	68
69	Magneto-thermopower and magnetoresistance of single Co-Ni alloy nanowires. Applied Physics Letters, 2013, 103, .	1.5	68
70	TiO₂, SiO₂, and Al₂O₃coated nanopores and nanotubes produced by ALD in etched ion-track membranes for transport measurements. Nanotechnology, 2015, 26, 335301.	1.3	67
71	Anisotropy and magnetotransport in ordered magnetic antidot arrays. Applied Physics Letters, 2004, 85, 2872-2874.	1.5	66
72	Thermoelectric transport and Hall measurements of low defect Sb₂Te₃thin films grown by atomic layer deposition. Semiconductor Science and Technology, 2013, 28, 035010.	1.0	65

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73	Monodisperse Diameter-Modulated Gold Microwires. Advanced Materials, 2002, 14, 1618-1621.	11.1	64
74	Unveiling the Hard Anodization Regime of Aluminum: Insight into Nanopores Self-Organization and Growth Mechanism. ACS Applied Materials & Interfaces, 2015, 7, 28682-28692.	4.0	64
75	Optimization of Electrodeposited pâ€Doped Sb₂Te₃ Thermoelectric Films by Millisecond Potentiostatic Pulses. Advanced Energy Materials, 2012, 2, 345-352.	10.2	63
76	Surface state dominated transport in topological insulator Bi₂Te₃ nanowires. Applied Physics Letters, 2013, 103, 193107.	1.5	63
77	Waste Recycling in Thermoelectric Materials. Advanced Energy Materials, 2020, 10, 1904159.	10.2	62
78	Magnetic reversal of cylindrical nickel nanowires with modulated diameters. Journal of Applied Physics, 2011, 109, .	1.1	60
79	Surface modification and fabrication of 3D nanostructures by atomic layer deposition. MRS Bulletin, 2011, 36, 887-897.	1.7	59
80	Superconductivity with broken time-reversal symmetry inside a superconducting s-wave state. Nature Physics, 2020, 16, 789-794.	6.5	59
81	Ordered Ni nanohole arrays with engineered geometrical aspects and magnetic anisotropy. Applied Physics Letters, 2007, 90, 192501.	1.5	58
82	Size effects in ordered arrays of magnetic nanotubes: Pick your reversal mode. Journal of Applied Physics, 2009, 105, .	1.1	57
83	Itinerant and localized magnetic moments in ferrimagnetic Mn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>CoGa thin films probed by x-ray magnetic linear dichroism: Experiment andab initiotheory. Physical Review B, 2011, 84, .	1.1	56
84	Evolution of the spin hall magnetoresistance in Cr2O3/Pt bilayers close to the NÃ©el temperature. Applied Physics Letters, 2018, 112, .	1.5	55
85	Advanced platform for the in-plane ZT measurement of thin films. Review of Scientific Instruments, 2018, 89, 015110.	0.6	55
86	Preparation of size-classified PbS nanoparticles in the gas phase. Applied Physics Letters, 1998, 73, 547-549.	1.5	54
87	Electroplating and magnetostructural characterization of multisegmented Co54Ni46/Co85Ni15 nanowires from single electrochemical bath in anodic alumina templates. Nanoscale Research Letters, 2013, 8, 263.	3.1	54
88	Aharonov-Bohm oscillations and weak antilocalization in topological insulator Sb2Te3 nanowires. Applied Physics Letters, 2013, 102, .	1.5	54
89	Magnetothermopower and magnetoresistance of single Co-Ni/Cu multilayered nanowires. Physical Review B, 2014, 90, .	1.1	54
90	Impact of the Topological Surface State on the Thermoelectric Transport in Sb₂Te₃ Thin Films. ACS Nano, 2015, 9, 4406-4411.	7.3	54

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91	Monodisperse metal nanowire arrays on Si by integration of template synthesis with silicon technology. Journal of Materials Chemistry, 2003, 13, 1100-1103.	6.7	52
92	Photoemission electron microscopy of three-dimensional magnetization configurations in core-shell nanostructures. Physical Review B, 2011, 84, .	1.1	52
93	Pulsed Vaporâ€Liquidâ€Solid Growth of Antimony Selenide and Antimony Sulfide Nanowires. Advanced Materials, 2009, 21, 3170-3174.	11.1	50
94	Electrochemical synthesis and magnetic characterization of periodically modulated Co nanowires. Nanotechnology, 2014, 25, 145301.	1.3	50
95	Unveiling the phonon scattering mechanisms in half-Heusler thermoelectric compounds. Energy and Environmental Science, 2020, 13, 5165-5176.	15.6	49
96	Direct Atomic Layer Deposition of Ternary Ferrites with Various Magnetic Properties. Chemistry of Materials, 2010, 22, 6506-6508.	3.2	48
97	Selfâ€Assembled Ultra High Strength, Ultra Stiff Mechanical Metamaterials Based on Inverse Opals. Advanced Engineering Materials, 2015, 17, 1420-1424.	1.6	48
98	Stoichiometry Controlled, Singleâ€Crystalline Bi₂Te₃ Nanowires for Transport in the Basal Plane. Advanced Functional Materials, 2012, 22, 151-156.	7.8	47
99	Low Temperature Stabilization of Nanoscale Epitaxial Spinel Ferrite Thin Films by Atomic Layer Deposition. Advanced Functional Materials, 2014, 24, 5368-5374.	7.8	47
100	Modulations in martensitic Heusler alloys originate from nanotwin ordering. Scientific Reports, 2018, 8, 8489.	1.6	47
101	Nucleation and growth of hierarchical martensite in epitaxial shape memory films. Acta Materialia, 2017, 132, 327-334.	3.8	46
102	Quantum materials for thermoelectricity. MRS Bulletin, 2018, 43, 187-192.	1.7	46
103	Stoichiometry of Nickel Oxide Films Prepared by ALD. Chemical Vapor Deposition, 2011, 17, 177-180.	1.4	45
104	Templateâ€assisted Coâ€“Ni alloys and multisegmented nanowires with tuned magnetic anisotropy. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1041-1047.	0.8	45
105	Ultrahigh Power Factor in Thermoelectric System Nb_{0.95}M_{0.05}FeSb (M = Hf,) Tj ETQq1 1 0.784314 rgBT /O	5.6	45
106	Deposition of topological insulator Sb2Te3 films by an MOCVD process. Journal of Materials Chemistry A, 2014, 2, 8215.	5.2	44
107	Understanding Pore Rearrangement during Mild to Hard Transition in Bilayered Porous Anodic Alumina Membranes. ACS Applied Materials & Interfaces, 2011, 3, 1925-1932.	4.0	43
108	In situ surface-enhanced Raman spectroscopy of monodisperse silver nanowire arrays. Journal of Applied Physics, 2005, 97, 024308.	1.1	42

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109	A robust thermoelectric module based on MgAgSb/Mg₃(Sb,Bi)₂with a conversion efficiency of 8.5% and a maximum cooling of 72 K. Energy and Environmental Science, 2022, 15, 2557-2566.	15.6	42
110	Magneto-optical Properties of Coreâ€“Shell Magneto-plasmonic Auâ€“CoxFe3Ââ€“ÂxO4 Nanowires. Langmuir, 2012, 28, 9127-9130.	1.6	41
111	Polymer-Assisted Self-Assembly of Superparamagnetic Iron Oxide Nanoparticles into Well-Defined Clusters: Controlling the Collective Magnetic Properties. Langmuir, 2014, 30, 11190-11196.	1.6	41
112	State with spontaneously broken time-reversal symmetry above the superconducting phase transition. Nature Physics, 2021, 17, 1254-1259.	6.5	41
113	Thermoelectric performance of classical topological insulator nanowires. Semiconductor Science and Technology, 2015, 30, 015015.	1.0	40
114	Thickness dependence of the anomalous Nernst effect and the Mott relation of Weyl semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Co</mml:mi><mml:mn>2</mml:mn></mml: thin films. Physical Review B, 2020, 101, .	1.1	40
115	Monodisperse aerosol particle deposition: Prospects for nanoelectronics. Microelectronic Engineering, 1998, 41-42, 535-538.	1.1	39
116	Study of the magnetic hysteresis in arrays of ferromagnetic Fe nanowires as a function of the template filling fraction. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1656-1657.	1.0	39
117	Surface-enhanced Raman spectroscopy employing monodisperse nickel nanowire arrays. Applied Physics Letters, 2006, 88, 023106.	1.5	38
118	Thermoelectric power factor of ternary single-crystalline Sb₂Te₃- and Bi₂Te₃-based nanowires. Nanotechnology, 2013, 24, 495402.	1.3	37
119	Advances in magneto-ionic materials and perspectives for their application. APL Materials, 2021, 9, .	2.2	37
120	Current Stateâ€ofâ€theâ€Art in the Interface/Surface Modification of Thermoelectric Materials. Advanced Energy Materials, 2021, 11, 2101877.	10.2	37
121	Magnetic, Multilayered Nanotubes of Low Aspect Ratios for Liquid Suspensions. Advanced Functional Materials, 2011, 21, 226-232.	7.8	36
122	Electrochemical synthesis of coaxial TiO₂â€“Ag nanowires and their application in photocatalytic water splitting. Journal of Materials Chemistry A, 2014, 2, 2648-2656.	5.2	36
123	Berry phase and band structure analysis of the Weyl semimetal NbP. Scientific Reports, 2016, 6, 33859.	1.6	36
124	Atomic Layer Deposition of Antimony Oxide and Antimony Sulfide. Chemistry of Materials, 2009, 21, 2586-2588.	3.2	35
125	Reversal modes and magnetostatic interactions in Fe₃O₄/ZrO₂/Fe₃O₄multilayer nanotubes. Nanotechnology, 2012, 23, 495718.	1.3	35
126	Synthesis of Iron Oxide Nanorods Using a Template Mediated Approach. Chemistry of Materials, 2015, 27, 4914-4917.	3.2	35

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127	Electrochemical and in situ magnetic study of iron/iron oxide films oxidized and reduced in KOH solution for magneto-ionic switching. Electrochemistry Communications, 2016, 72, 153-156.	2.3	33
128	The effect of the microstructure on the antiferromagnetic to ferromagnetic transition in FeRh alloys. Acta Materialia, 2017, 131, 31-38.	3.8	33
129	FMR characterization of hexagonal arrays of Ni nanowires. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1652-1653.	1.0	32
130	Well-ordered large-area arrays of epitaxial ferroelectric (Bi,La)4Ti3O12 nanostructures fabricated by gold nanotube-membrane lithography. Applied Physics Letters, 2005, 86, 152906.	1.5	32
131	Thermal radiation transmission and reflection properties of ceramic 3D photonic crystals. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 450.	0.9	32
132	Enhanced magneto-thermoelectric power factor of a 70â€‰nm Ni-nanowire. Journal of Applied Physics, 2012, 111, .	1.1	32
133	Singleâ€<scp>S</scp>ource Precursorâ€<scp>B</scp>ased Deposition of Sb₂<scp>T</scp>e₃ Films by MOCVD^{**}. Chemical Vapor Deposition, 2013, 19, 235-241.	1.4	32
134	Nonvolatile Electric Control of Exchange Bias by a Redox Transformation of the Ferromagnetic Layer. Advanced Electronic Materials, 2019, 5, 1900296.	2.6	32
135	Magnetic cylindrical nanowires with single modulated diameter. Physical Review B, 2009, 80, .	1.1	31
136	Disproportionation of thermoelectric bismuth telluride nanowires as a result of the annealing process. Physical Chemistry Chemical Physics, 2010, 12, 15247.	1.3	31
137	Constrained Order in Nanoporous Alumina with High Aspect Ratio: Smart Combination of Interference Lithography and Hard Anodization. Advanced Functional Materials, 2014, 24, 1857-1863.	7.8	31
138	Efficient and affordable thermomagnetic materials for harvesting low grade waste heat. APL Materials, 2021, 9, .	2.2	31
139	Characterization of Bundled and Individual Triple-Walled Carbon Nanotubes by Resonant Raman Spectroscopy. ACS Nano, 2013, 7, 2381-2387.	7.3	30
140	Resolving the Dirac cone on the surface of Bi2Te3 topological insulator nanowires by field-effect measurements. Applied Physics Letters, 2014, 104, .	1.5	30
141	Research Update: Magnetoionic control of magnetization and anisotropy in layered oxide/metal heterostructures. APL Materials, 2016, 4, .	2.2	30
142	All-electrochemical voltage-control of magnetization in metal oxide/metal nanoislands. Journal of Materials Chemistry C, 2018, 6, 8411-8417.	2.7	30
143	Origins of strength and plasticity in the precious metal based high-entropy alloy AuCuNiPdPt. Acta Materialia, 2020, 185, 400-411.	3.8	30
144	Doping Highâ€Mobility Donorâ€“Acceptor Copolymer Semiconductors with an Organic Salt for Highâ€Performance Thermoelectric Materials. Advanced Electronic Materials, 2020, 6, 1900945.	2.6	30

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145	Building Hierarchical Martensite. Advanced Functional Materials, 2021, 31, 2005715.	7.8	30
146	Large-area porous alumina photonic crystals via imprint method. Materials Research Society Symposia Proceedings, 2002, 722, 521.	0.1	29
147	Reducing the nucleation barrier in magnetocaloric Heusler alloys by nanoindentation. APL Materials, 2016, 4, .	2.2	29
148	Platform for in-planeZTmeasurement and Hall coefficient determination of thin films in a temperature range from 120 K up to 450 K. Journal of Materials Research, 2016, 31, 3196-3204.	1.2	28
149	Highly porous Î±-Al2O3 ceramics obtained by sintering atomic layer deposited inverse opals. Ceramics International, 2017, 43, 11260-11264.	2.3	28
150	Reduced Lattice Thermal Conductivity for Half-Heusler ZrNiSn through Cryogenic Mechanical Alloying. ACS Applied Materials & Interfaces, 2021, 13, 38561-38568.	4.0	28
151	Fabrication of Chemically Tunable, Hierarchically Branched Polymeric Nanostructures by Multi-branched Anodic Aluminum Oxide Templates. Langmuir, 2016, 32, 6437-6444.	1.6	27
152	Composition and diameter modulation of magnetic nanowire arrays fabricated by a novel approach. Nanotechnology, 2018, 29, 065602.	1.3	27
153	Spin waves in permalloy nanowires: The importance of easy-plane anisotropy. Physical Review B, 2006, 73, .	1.1	26
154	Formation of Titania/Silica Hybrid Nanowires Containing Linear Mesocage Arrays by Evaporationâ€Induced Blockâ€Copolymer Selfâ€Assembly and Atomic Layer Deposition. Angewandte Chemie - International Edition, 2007, 46, 6829-6832.	7.2	26
155	Microstructure and temperature-dependent magnetic properties of Co/Pt multilayered nanowires. Chemical Physics Letters, 2008, 466, 165-169.	1.2	26
156	Confined crystallization of anatase TiO2 nanotubes and their implications on transport properties. Journal of Materials Chemistry A, 2013, 1, 14080.	5.2	26
157	Thermopower engineering of Bi₂Te₃without alloying: the interplay between nanostructuring and defect activation. Semiconductor Science and Technology, 2014, 29, 064003.	1.0	26
158	Monolithically Integrated Microelectromechanical Systems for On-Chip Strain Engineering of Quantum Dots. Nano Letters, 2016, 16, 5785-5791.	4.5	26
159	Induction Mapping of the 3D-Modulated Spin Texture of Skyrmions in Thin Helimagnets. Physical Review Letters, 2018, 120, 217201.	2.9	26
160	Mg₃(Bi,Sb)₂-based thermoelectric modules for efficient and reliable waste-heat utilization up to 750 K. Energy and Environmental Science, 2022, 15, 3265-3274.	15.6	26
161	Tubular magnetic nanostructures based on glancing angle deposited templates and atomic layer deposition. Physica Status Solidi (B): Basic Research, 2010, 247, 1365-1371.	0.7	25
162	The surface-to-volume ratio: a key parameter in the thermoelectric transport of topological insulator Bi₂Se₃nanowires. Nanoscale, 2016, 8, 13552-13557.	2.8	25

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163	Face Centred Cubic Multi-Component Equiatomic Solid Solutions in the Au-Cu-Ni-Pd-Pt System. Metals, 2017, 7, 135.	1.0	25
164	Stacking of Ceramic Inverse Opals with Different Lattice Constants. Journal of the American Ceramic Society, 2012, 95, 2226-2235.	1.9	24
165	Role of Intertube Interactions in Double- and Triple-Walled Carbon Nanotubes. ACS Nano, 2014, 8, 1330-1341.	7.3	24
166	Thermoelectric Properties of Band Structure Engineered Topological Insulator (Bi_{1â^'x}Sb_x)₂Te₃ Nanowires. Advanced Energy Materials, 2015, 5, 1500280.	10.2	24
167	Bottom-up Fabrication of Multilayer Stacks of 3D Photonic Crystals from Titanium Dioxide. ACS Applied Materials & Interfaces, 2016, 8, 10466-10476.	4.0	24
168	Statistical magnetometry on isolated NiCo nanowires and nanowire arrays: a comparative study. Journal Physics D: Applied Physics, 2016, 49, 145005.	1.3	24
169	Intra-wire coupling in segmented Ni/Cu nanowires deposited by electrodeposition. Nanotechnology, 2017, 28, 065709.	1.3	24
170	Atom size electron vortex beams with selectable orbital angular momentum. Scientific Reports, 2017, 7, 934.	1.6	24
171	Thermoelectric properties of silicon and recycled silicon sawing waste. Journal of Materiomics, 2019, 5, 15-33.	2.8	24
172	A novel approach for fabrication of bismuth-silicon dioxide core-shell structures by atomic layer deposition. Journal of Materials Chemistry, 2009, 19, 7050.	6.7	23
173	The Transition between Conformal Atomic Layer Epitaxy and Nanowire Growth. Journal of the American Chemical Society, 2010, 132, 7592-7594.	6.6	23
174	Magnetic properties of multisegmented cylindrical nanoparticles with alternating magnetic wire and tube segments. Journal of Magnetism and Magnetic Materials, 2013, 346, 171-174.	1.0	23
175	Anisotropic magnetothermal resistance in Ni nanowires. Physical Review B, 2013, 87, .	1.1	23
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