Kornelius Nielsch

List of Publications by Citations

403 papers	18,466 citations	62 h-index	126 g-index
439 ext. papers	20,196 ext. citations	6.6 avg, IF	6.61 L-index

#	Paper	IF	Citations
403	Hexagonal pore arrays with a 50□420 nm interpore distance formed by self-organization in anodic alumina. *Journal of Applied Physics*, **1998**, 84, 6023-6026	2.5	1316
402	Fast fabrication of long-range ordered porous alumina membranes by hard anodization. *Nature Materials*, **2006**, 5, 741-7	27	1112
401	Self-ordering Regimes of Porous Alumina: The 10 Porosity Rule. *Nano Letters*, **2002**, 2, 677-680	11.5	853
400	Polymer nanotubes by wetting of ordered porous templates. *Science*, **2002**, 296, 1997	33.3	752
399	Synthesis and Surface Engineering of Complex Nanostructures by Atomic Layer Deposition. *Advanced Materials*, **2007**, 19, 3425-3438	24	728
398	Uniform Nickel Deposition into Ordered Alumina Pores by Pulsed Electrodeposition. *Advanced Materials*, **2000**, 12, 582-586	24	719
397	Monocrystalline spinel nanotube fabrication based on the Kirkendall effect. *Nature Materials*, **2006**, 5, 627-31	27	642
396	Hexagonally ordered 100 nm period nickel nanowire arrays. *Applied Physics Letters*, **2001**, 79, 1360-1362	3.4	490
395	Influence of surface diffusion on the formation of hollow nanostructures induced by the Kirkendall effect: the basic concept. *Nano Letters*, **2007**, 7, 993-7	11.5	337
394	Highly ordered monocrystalline silver nanowire arrays. *Journal of Applied Physics*, **2002**, 91, 3243-3247	2.5	330
393	Fabrication and Microstructuring of Hexagonally Ordered Two-Dimensional Nanopore Arrays in Anodic Alumina. *Advanced Materials*, **1999**, 11, 483-487	24	245
392	A template-based electrochemical method for the synthesis of multisegmented metallic nanotubes. *Angewandte Chemie - International Edition*, **2005**, 44, 6050-4	16.4	231
391	Ordered iron oxide nanotube arrays of controlled geometry and tunable magnetism by atomic layer deposition. *Journal of the American Chemical Society*, **2007**, 129, 9554-5	16.4	219
390	Hexagonally Arranged Monodisperse Silver Nanowires with Adjustable Diameter and High Aspect Ratio. *Chemistry of Materials*, **2003**, 15, 776-779	9.6	214
389	Self-ordered anodic aluminum oxide formed by H2SO4 hard anodization. *ACS Nano*, **2008**, 2, 302-10	16.7	198
388	Template-assisted large-scale ordered arrays of ZnO pillars for optical and piezoelectric applications. *Small*, **2006**, 2, 561-8	11	194
387	Thermoelectric Nanostructures: From Physical Model Systems towards Nanograined Composites. *Advanced Energy Materials*, **2011**, 1, 713-731	21.8	193

386	Atomic layer deposition on biological macromolecules: metal oxide coating of tobacco mosaic virus and ferritin. *Nano Letters*, **2006**, 6, 1172-7	11.5	183
385	Are Binary Copper Sulfides/Selenides Really New and Promising Thermoelectric Materials?. *Advanced Energy Materials*, **2014**, 4, 1301581	21.8	169
384	Experimental signatures of the mixed axial-gravitational anomaly in the Weyl semimetal NbP. *Nature*, **2017**, 547, 324-327	50.4	161
383	Discovery of TaFeSb-based half-Heuslers with high thermoelectric performance. *Nature Communications*, **2019**, 10, 270	17.4	155
382	Ferromagnetic nanotubes by atomic layer deposition in anodic alumina membranes. *Journal of Applied Physics*, **2007**, 101, 09J111	2.5	154
381	Discovery of ZrCoBi based half Heuslers with high thermoelectric conversion efficiency. *Nature Communications*, **2018**, 9, 2497	17.4	154
380	Thermoelectric Devices: A Review of Devices, Architectures, and Contact Optimization. *Advanced Materials Technologies*, **2018**, 3, 1700256	6.8	151
379	Spin-wave quantization in ferromagnetic nickel nanowires. *Physical Review Letters*, **2002**, 89, 027201	7.4	145
378	Arrays of vertically aligned and hexagonally arranged ZnO nanowires: a new template-directed approach. *Nanotechnology*, **2005**, 16, 913-917	3.4	138
377	Crossover between two different magnetization reversal modes in arrays of iron oxide nanotubes. *Physical Review B*, **2008**, 77,	3.3	134
376	High density hexagonal nickel nanowire array. *Journal of Magnetism and Magnetic Materials*, **2002**, 249, 234-240	2.8	130
375	Wafer-scale Ni imprint stamps for porous alumina membranes based on interference lithography. *Small*, **2006**, 2, 978-82	11	126
374	A practical, self-catalytic, atomic layer deposition of silicon dioxide. *Angewandte Chemie - International Edition*, **2008**, 47, 6177-9	16.4	120
373	Chemical Aspects of the Candidate Antiferromagnetic Topological Insulator MnBi2Te4. *Chemistry of Materials*, **2019**, 31, 2795-2806	9.6	114
372	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		114
371	Polycrystalline nanopore arrays with hexagonal ordering on aluminum. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1999**, 17, 1428-1431	2.9	112
370	Improved thermoelectric performance of n-type half-Heusler MCo1-xNixSb (M = Hf, Zr). *Materials Today Physics*, **2017**, 1, 24-30	8	110
369	Self-ordering behavior of nanoporous anodic aluminum oxide (AAO) in malonic acid anodization. *Nanotechnology*, **2007**, 18, 475713	3.4	110

368	Tuning the magnetic anisotropy of Co-Ni nanowires: comparison between single nanowires and nanowire arrays in hard-anodic aluminum oxide membranes. *Nanotechnology*, **2012**, 23, 465709	3.4	102
367	Large thermoelectric power factor enhancement observed in InAs nanowires. *Nano Letters*, **2013**, 13, 4080-6	11.5	100
366	Controlled introduction of diameter modulations in arrayed magnetic iron oxide nanotubes. *ACS Nano*, **2009**, 3, 3463-8	16.7	100
365	Multilayered core/shell nanowires displaying two distinct magnetic switching events. *Advanced Materials*, **2010**, 22, 2435-9	24	96
364	Magnetic properties of template-synthesized cobalt–polymer composite nanotubes. *Journal of Applied Physics*, **2005**, 98, 034318	2.5	95
363	Synthesis of Cobalt/Polymer Multilayer Nanotubes. *Advanced Engineering Materials*, **2005**, 7, 217-221	3.5	94
362	Laser-interference lithography tailored for highly symmetrically arranged ZnO nanowire arrays. *Small*, **2007**, 3, 76-80	11	86
361	Enhanced Magneto-Optics and Size Effects in Ferromagnetic Nanowire Arrays. *Advanced Materials*, **2007**, 19, 2643-2647	24	82
360	Tuning the crystallinity of thermoelectric Bi(2)Te(3) nanowire arrays grown by pulsed electrodeposition. *Nanotechnology*, **2008**, 19, 365701	3.4	80
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358	Novel magnetic materials prepared by electrodeposition techniques: arrays of nanowires and multi-layered microwires. *Journal of Alloys and Compounds*, **2004**, 369, 18-26	5.7	77
357	Thermoelectric characterization of bismuth telluride nanowires, synthesized via catalytic growth and post-annealing. *Advanced Materials*, **2013**, 25, 239-44	24	73
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355	Templated Fabrication of Nanowire and Nanoring Arrays Based on Interference Lithography and Electrochemical Deposition. *Advanced Materials*, **2006**, 18, 2593-2596	24	73
354	Experimental evidence for an angular dependent transition of magnetization reversal modes in magnetic nanotubes. *Journal of Applied Physics*, **2011**, 109, 093910	2.5	72
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349	Patterned growth of aligned ZnO nanowire arrays on sapphire and GaN layers. *Superlattices and Microstructures*, **2004**, 36, 95-105	2.8	67
348	Magnetic characterization of nickel-rich NiFe nanowires grown by pulsed electrodeposition. *Journal of Materials Chemistry*, **2012**, 22, 8549		65
347	Uniform Nickel Deposition into Ordered Alumina Pores by Pulsed Electrodeposition **2000**, 12, 582		64
346	Magneto-thermopower and magnetoresistance of single Co-Ni alloy nanowires. *Applied Physics Letters*, **2013**, 103, 092407	3.4	63
345	Single-crystalline MgAl2O4spinel nanotubes using a reactive and removable MgO nanowire template. *Nanotechnology*, **2006**, 17, 5157-5162	3.4	63
344	Anisotropy and magnetotransport in ordered magnetic antidot arrays. *Applied Physics Letters*, **2004**, 85, 2872-2874	3.4	63
343	Switching behavior of single nanowires inside dense nickel nanowire arrays. *IEEE Transactions on Magnetics*, **2002**, 38, 2571-2573	2	63
342	Thermoelectric properties of topological insulator Bi2Te3, Sb2Te3, and Bi2Se3 thin film quantum wells. *Applied Physics Letters*, **2014**, 105, 123117	3.4	62
341	Thermoelectric transport and Hall measurements of low defect Sb2Te3thin films grown by atomic layer deposition. *Semiconductor Science and Technology*, **2013**, 28, 035010	1.8	62
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317	Impact of the Topological Surface State on the Thermoelectric Transport in Sb2Te3 Thin Films. *ACS Nano*, **2015**, 9, 4406-11	16.7	44
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265	Magnetic properties of multisegmented cylindrical nanoparticles with alternating magnetic wire and tube segments. *Journal of Magnetism and Magnetic Materials*, **2013**, 346, 171-174	2.8	23
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