

Artur Erbe

List of Publications by Year in descending order

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123
papers

3,941
citations

126858

33
h-index

133188

59
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126
all docs

126
docs citations

126
times ranked

5184
citing authors

#	ARTICLE	IF	CITATIONS
1	Mid- and far-infrared localized surface plasmon resonances in chalcogen-hyperdoped silicon. <i>Nanoscale</i> , 2022, 14, 2826-2836.	2.8	9
2	Self-Driven Broadband Photodetectors Based on MoSe ₂ /FePS ₃ van der Waals n ⁺ p Type-II Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 11927-11936.	4.0	35
3	Terahertz control of photoluminescence emission in few-layer InSe. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	4
4	Metal-assisted chemically etched silicon nanopillars hosting telecom photon emitters. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	10
5	Recent progress in contact, mobility, and encapsulation engineering of InSe and GaSe. <i>Informa^Ån^Å-Materi^Åly</i> , 2021, 3, 662-693.	8.5	49
6	Sensitivity of PS/CoPd Janus particles to an external magnetic field. <i>RSC Advances</i> , 2021, 11, 17051-17057.	1.7	2
7	Negative resistance for colloids driven over two barriers in a microchannel. <i>Soft Matter</i> , 2021, 17, 516-522.	1.2	4
8	Fabrication and temperature-dependent electrical characterization of a C-shape nanowire patterned by a DNA origami. <i>Scientific Reports</i> , 2021, 11, 1922.	1.6	8
9	Local and nonlocal spin Seebeck effect in lateral Pt ^Å Cr ₂ O ₃ ^Å Pt devices at low temperatures. <i>APL Materials</i> , 2021, 9, .	2.2	13
10	Control over self-assembled Janus clusters by the strength of magnetic field in H_{2}O . <i>European Physical Journal E</i> , 2021, 44, 23.	0.7	4
11	Characterization of gas permeability of polymer membranes for encapsulation of 2D-material sensors. , 2021, , .		1
12	Complex Metal Nanostructures with Programmable Shapes from Simple DNA Building Blocks. <i>Advanced Materials</i> , 2021, 33, e2100381.	11.1	23
13	Single ^Å Molecule Doping: Conductance Changed By Transition Metal Centers in Salen Molecules. <i>Advanced Electronic Materials</i> , 2021, 7, 2100252.	2.6	5
14	Enhanced Trion Emission in Monolayer MoSe ₂ by Constructing a Type ^Å Van Der Waals Heterostructure. <i>Advanced Functional Materials</i> , 2021, 31, 2104960.	7.8	21
15	Electrical Characterization of Germanium Nanowires Using a Symmetric Hall Bar Configuration: Size and Shape Dependence. <i>Nanomaterials</i> , 2021, 11, 2917.	1.9	5
16	Controlled Silicidation of Silicon Nanowires Using Flash Lamp Annealing. <i>Langmuir</i> , 2021, , .	1.6	4
17	Comparative Studies of Light-Responsive Swimmers: Janus Nanorods versus Spherical Particles. <i>Langmuir</i> , 2020, 36, 12504-12512.	1.6	4
18	Formation and crystallographic orientation of NiSi ₂ ^Å Si interfaces. <i>Journal of Applied Physics</i> , 2020, 128, 085301.	1.1	7

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19	Towards Scalable Reconfigurable Field Effect Transistor using Flash Lamp Annealing. , 2020, , .		2
20	Broadband Photodetectors: Demonstration of a Broadband Photodetector Based on a Twoâ€Dimensional Metalâ€Organic Framework (Adv. Mater. 9/2020). Advanced Materials, 2020, 32, 2070071.	11.1	2
21	Demonstration of a Broadband Photodetector Based on a Twoâ€Dimensional Metalâ€Organic Framework. Advanced Materials, 2020, 32, e1907063.	11.1	103
22	Photoluminescence dynamics in few-layer InSe. Physical Review Materials, 2020, 4, .	0.9	14
23	Anisotropy of colloidal components propels field-activated stirrers and movers. Physical Review Research, 2020, 2, .	1.3	6
24	Autocorrected off-axis holography of two-dimensional materials. Physical Review Research, 2020, 2, .	1.3	5
25	Focused ion beam modification of non-local magnon-based transport in yttrium iron garnet/platinum heterostructures. Applied Physics Letters, 2019, 114, 252401.	1.5	6
26	Field-responsive colloidal assemblies defined by magnetic anisotropy. Physical Review E, 2019, 100, 012608.	0.8	11
27	Nanoscale n++p junction formation in GeOI probed by tip-enhanced Raman spectroscopy and conductive atomic force microscopy. Journal of Applied Physics, 2019, 125, 245703.	1.1	5
28	Towards Reconfigurable Electronics: Silicidation of Top-Down Fabricated Silicon Nanowires. Applied Sciences (Switzerland), 2019, 9, 3462.	1.3	16
29	A Twoâ€Parameter Model for Colloidal Particles with an Extended Magnetic Cap. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900506.	0.8	2
30	Effective Hexagonal Boron Nitride Passivation of Few-Layered InSe and GaSe to Enhance Their Electronic and Optical Properties. ACS Applied Materials & Interfaces, 2019, 11, 43480-43487.	4.0	44
31	Exciton localization in MoSe ₂ monolayers induced by adsorbed gas molecules. Applied Physics Letters, 2019, 114, 172106.	1.5	15
32	Emission and propagation of 1D and 2D spin waves with nanoscale wavelengths in anisotropic spin textures. Nature Nanotechnology, 2019, 14, 328-333.	15.6	115
33	DNA-Mold Templated Assembly of Conductive Gold Nanowires. Nano Letters, 2018, 18, 2116-2123.	4.5	93
34	CMOSâ€Compatible Controlled Hyperdoping of Silicon Nanowires. Advanced Materials Interfaces, 2018, 5, 1800101.	1.9	11
35	Review of the Electrical Characterization of Metallic Nanowires on DNA Templates. International Journal of Molecular Sciences, 2018, 19, 3019.	1.8	16
36	High-mobility band-like charge transport in a semiconducting two-dimensional metalâ€organic framework. Nature Materials, 2018, 17, 1027-1032.	13.3	341

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37	Observation of Ultrafast Solid-Density Plasma Dynamics Using Femtosecond X-Ray Pulses from a Free-Electron Laser. <i>Physical Review X</i> , 2018, 8, .	2.8	21
38	Formation of n- and p-type regions in individual Si/SiO ₂ core/shell nanowires by ion beam doping. <i>Nanotechnology</i> , 2018, 29, 474001.	1.3	6
39	A wired-AND transistor: Polarity controllable FET with multiple inputs. , 2018, , .		24
40	Electrical characterization of two-dimensional materials and their heterostructures. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 198, 012002.	0.3	5
41	Targets for high repetition rate laser facilities: needs, challenges and perspectives. <i>High Power Laser Science and Engineering</i> , 2017, 5, .	2.0	106
42	Local Formation of InAs Nanocrystals in Si by Masked Ion Implantation and Flash Lamp Annealing. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2017, 14, 1700188.	0.8	3
43	Role of solvents in the electronic transport properties of single-molecule junctions. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 1055-1067.	1.5	17
44	Temperature-Dependent Charge Transport through Individually Contacted DNA Origami-Based Au Nanowires. <i>Langmuir</i> , 2016, 32, 10159-10165.	1.6	49
45	Magnetic vortex cores as tunable spin-wave emitters. <i>Nature Nanotechnology</i> , 2016, 11, 948-953.	15.6	169
46	Non-equilibrium dynamics of magnetically anisotropic particles under oscillating fields. <i>European Physical Journal E</i> , 2016, 39, 69.	0.7	19
47	Rotational friction of dipolar colloids measured by driven torsional oscillations. <i>Scientific Reports</i> , 2016, 6, 34193.	1.6	3
48	Bistable self-assembly in homogeneous colloidal systems for flexible modular architectures. <i>Soft Matter</i> , 2016, 12, 2737-2743.	1.2	18
49	Nanopatterned polymer brushes by reactive writing. <i>Nanoscale</i> , 2016, 8, 7513-7522.	2.8	7
50	Stacked topological spin textures as emitters for multidimensional spin wave modes. , 2015, , .		2
51	Light-Induced Switching of Tunable Single-Molecule Junctions. <i>Advanced Science</i> , 2015, 2, 1500017.	5.6	48
52	Universal ultrafast detector for short optical pulses based on graphene. <i>Optics Express</i> , 2015, 23, 28728.	1.7	23
53	Effect of Waveform of ac Voltage on the Morphology and Crystallinity of Electrochemically Assembled Platinum Nanowires. <i>Langmuir</i> , 2014, 30, 5655-5661.	1.6	3
54	Transport phenomena and dynamics of externally and self-propelled colloids in confined geometry. <i>European Physical Journal: Special Topics</i> , 2013, 222, 2923-2939.	1.2	33

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55	Control over Janus micromotors by the strength of a magnetic field. <i>Nanoscale</i> , 2013, 5, 1332-1336.	2.8	84
56	Topology and Origin of Effective Spin Meron Pairs in Ferromagnetic Multilayer Elements. <i>Physical Review Letters</i> , 2013, 110, 177201.	2.9	55
57	Switchable zero-bias anomaly in individual C60 molecules contacted with tunable aluminum electrodes. <i>Low Temperature Physics</i> , 2013, 39, 259-264.	0.2	3
58	Ultrafast spectroscopy of super high frequency mechanical modes of doubly clamped beams. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	8
59	Lateral spin transfer torque induced magnetic switching at room temperature demonstrated by x-ray microscopy. <i>Scientific Reports</i> , 2013, 3, 2945.	1.6	3
60	Electronic transport through short ds<scp>DNA</scp> measured with mechanically controlled break junctions: New thiolâ€“gold binding protocol improves conductance. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2342-2348.	0.7	8
61	Contacting metallic nanoparticles on transparent substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 1311-1315.	0.8	0
62	Stochastic transport of particles across single barriers. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 464120.	0.7	9
63	Control of vortex pair states by post-deposition interlayer exchange coupling modification. <i>Physical Review B</i> , 2012, 85, .	1.1	11
64	Interlayer-coupled spin vortex pairs and their response to external magnetic fields. <i>Physical Review B</i> , 2012, 85, .	1.1	6
65	Non-monotonic crossover from single-file to regular diffusion in micro-channels. <i>Scientific Reports</i> , 2012, 2, 1015.	1.6	38
66	Time efficient fabrication of ultra large scale nano dot arrays using electron beam lithography. <i>Microelectronic Engineering</i> , 2012, 97, 55-58.	1.1	4
67	A single-channel microparticle sieve based on Brownian ratchets. <i>Lab on A Chip</i> , 2012, 12, 1238.	3.1	14
68	Charge Transport Characteristics of Diarylethene Photoswitching Single-Molecule Junctions. <i>Nano Letters</i> , 2012, 12, 3736-3742.	4.5	163
69	Currentâ€“voltage characteristics of single-molecule diarylethene junctions measured with adjustable gold electrodes in solution. <i>Beilstein Journal of Nanotechnology</i> , 2012, 3, 798-808.	1.5	38
70	Determination of potential landscapes using video microscopy. <i>Colloid and Polymer Science</i> , 2012, 290, 575-578.	1.0	6
71	Statistical Investigation of Current-Voltage Characterization in Single Molecule-Metal Junctions. <i>Acta Physica Polonica A</i> , 2012, 121, 410-415.	0.2	4
72	Benzenedithiol: A Broad-Range Single-Channel Molecular Conductor. <i>Nano Letters</i> , 2011, 11, 3734-3738.	4.5	192

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73	Direct observation of antiferromagnetically oriented spin vortex states in magnetic multilayer elements. Applied Physics Letters, 2011, 98, .	1.5	18
74	Subharmonic Resonant Optical Excitation of Confined Acoustic Modes in a Free-Standing Semiconductor Membrane at GHz Frequencies with a High-Repetition-Rate Femtosecond Laser. Physical Review Letters, 2011, 106, 077401.	2.9	65
75	Modification of vibrational damping times in thin gold films by self-assembled molecular layers. Applied Physics Letters, 2011, 98, 261908.	1.5	22
76	Direct Measurement of Electrical Transport Through C ₆₀ Quadruplex DNA with Mechanically Controllable Break Junction Electrodes. Angewandte Chemie - International Edition, 2010, 49, 3313-3316.	7.2	83
77	Revealing the Role of Anchoring Groups in the Electrical Conduction Through Single-Molecule Junctions. Small, 2010, 6, 1529-1535.	5.2	200
78	Density reduction and diffusion in driven two-dimensional colloidal systems through microchannels. Physical Review E, 2010, 81, 041402.	0.8	33
79	Observation of negative differential resistance in DNA molecular junctions. Applied Physics Letters, 2010, 96, .	1.5	45
80	Quasiantiferromagnetic $\langle \mathbf{m} \rangle$ state in two-dimensional clusters of dipole-quadrupole-interacting particles on a hexagonal lattice. Physical Review B, 2009, 80, .	1.1	11
81	Confined longitudinal acoustic phonon modes in free-standing Si membranes coherently excited by femtosecond laser pulses. Physical Review B, 2009, 79, .	1.1	47
82	Molecular Electronics: A Review of Experimental Results. Acta Physica Polonica A, 2009, 115, 455-461.	0.2	4
83	Thiolated Nucleotides for Immobilisation of DNA Oligomers on Gold Surfaces. ChemPhysChem, 2008, 9, 1241-1244.	1.0	13
84	Electrical characterization of DNA in mechanically controlled break-junctions. New Journal of Physics, 2008, 10, 023030.	1.2	36
85	Influence of chopped laser light onto the electronic transport through atomic-sized contacts. Journal of Microscopy, 2008, 229, 407-414.	0.8	7
86	Electrical characterization of alkane monolayers using micro-transfer printing: tunneling and molecular transport. New Journal of Physics, 2008, 10, 075001.	1.2	5
87	Various driving mechanisms for generating motion of colloidal particles. Journal of Physics Condensed Matter, 2008, 20, 404215.	0.7	57
88	Frustration-induced magic number clusters of colloidal magnetic particles. Physical Review E, 2008, 77, 031407.	0.8	62
89	Influence of Laser Light on Electronic Transport through Atomic-Size Contacts. Physical Review Letters, 2007, 99, 086801.	2.9	68
90	Characterization of magnetic colloids by means of magnetooptics. European Physical Journal E, 2007, 23, 129-33.	0.7	8

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91	Acoustic laser cleaning of silicon surfaces. Applied Physics A: Materials Science and Processing, 2007, 89, 109-113.	1.1	16
92	Capped colloids as light-mills in optical traps. New Journal of Physics, 2006, 8, 216-216.	1.2	28
93	Control of topography, stress and diffusion at molecule-metal interfaces. Nanotechnology, 2006, 17, 1272-1277.	1.3	28
94	Layer Reduction in Driven 2D-Colloidal Systems through Microchannels. Physical Review Letters, 2006, 97, 208302.	2.9	85
95	Conductance of molecular nanojunctions: roles of surface topography and metal contacts. , 2005, 5592, 91.		0
96	Molecular nano-junctions formed with different metallic electrodes. Nanotechnology, 2005, 16, 495-500.	1.3	15
97	Nanoscale patterning in application to materials and device structures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 3132.	1.6	6
98	Prevalence of Coulomb blockade in electro-migrated junctions with conjugated and non-conjugated molecules. Nanotechnology, 2005, 16, 3110-3114.	1.3	14
99	Self-excitation in nanoelectromechanical charge shuttles below the field emission regime. New Journal of Physics, 2005, 7, 240-240.	1.2	8
100	Single- and Multigrain Nanojunctions with a Self-Assembled Monolayer of Conjugated Molecules. Physical Review Letters, 2004, 92, 186805.	2.9	54
101	Characterization of Nanoscale Molecular Junctions. , 2004, , 1-12.		0
102	Gated molecular devices using self-assembled monolayers. Nanotechnology, 2003, 14, 254-257.	1.3	25
103	Dynamic control and modal analysis of coupled nano-mechanical resonators. Applied Physics Letters, 2003, 82, 3333-3335.	1.5	11
104	Comparing schemes of displacement detection and subharmonic generation in nanomachined mechanical resonators. Nanotechnology, 2003, 14, 799-802.	1.3	7
105	Evidence of a nanomechanical resonator being driven into chaotic response via the Ruelle-Takens route. Applied Physics Letters, 2002, 81, 1884-1886.	1.5	44
106	Electron-phonon interaction in suspended highly doped silicon nanowires. Nanotechnology, 2002, 13, 491-494.	1.3	31
107	Tunable coupled nanomechanical resonators for single-electron transport. New Journal of Physics, 2002, 4, 86-86.	1.2	30
108	Nanostructured silicon for studying fundamental aspects of nanomechanics. Journal of Physics Condensed Matter, 2002, 14, R905-R945.	0.7	44

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109	Silicon-on-insulator based nanoresonators for mechanical mixing at radio frequencies. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2002, 49, 1114-1117.	1.7	16
110	Nanomechanical Resonator Shuttling Single Electrons at Radio Frequencies. Physical Review Letters, 2001, 87, 096106.	2.9	165
111	Parametric frequency tuning of phase-locked nanoelectromechanical resonators. Applied Physics Letters, 2001, 79, 3521-3523.	1.5	16
112	Nano-Electromechanical Systems: Displacement Detection and the Mechanical Single Electron Shuttle. Lecture Notes in Physics, 2001, , 215-227.	0.3	0
113	Silicon-based nanoelectronics and nanoelectromechanics. Superlattices and Microstructures, 2000, 27, 597-601.	1.4	1
114	Mechanical properties of suspended structures at radio frequencies. Physica B: Condensed Matter, 2000, 280, 553-554.	1.3	3
115	Charge detection with nanomechanical resonators. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 6, 821-827.	1.3	19
116	Mechanical mixing in nonlinear nanomechanical resonators. Applied Physics Letters, 2000, 77, 3102-3104.	1.5	83
117	Auf dem Weg zur "Quantenmechanik"; Nanomechanische Resonatoren dienen als schnelle Schalter und Frequenzgeber. Physik Journal, 2000, 56, 31-36.	0.1	3
118	Nanomechanical resonators operating as charge detectors in the nonlinear regime. Europhysics Letters, 2000, 50, 101-106.	0.7	74
119	Nanomechanical vibrating wire resonator for phonon spectroscopy in liquid helium. Nanotechnology, 2000, 11, 165-168.	1.3	16
120	Nanomechanical resonators operating at radio frequencies. Physica B: Condensed Matter, 1999, 272, 575-577.	1.3	6
121	Nanomechanical resonators operating in the radio frequency regime as single charge detectors. , 1999, , 121-130.		1
122	A mechanically flexible tunneling contact operating at radio frequencies. Applied Physics Letters, 1998, 73, 3751-3753.	1.5	71
123	DNA Wires and Electron Transport Through DNA. , 0, , 79-136.		3