Elke Scheer

List of Publications by Year
in descending order

144 papers	5,249 citations	126901 33 h-index	88628 70 g-index
149 all docs	149 docs citations	149 times ranked	4643 citing authors

#	Article	IF	Citations
1	Electronic transport through single-molecule oligophenyl-diethynyl junctions with direct goldâ€“carbon bonds formed at low temperature. Nanoscale Advances, 2022, 4, 457-466.	4.6	4
2	Interplay between Magnetoresistance and Kondo Resonance in Radical Single-Molecule Junctions. Nano Letters, 2022, 22, 5773-5779.	9.1	10
3	Single-charge transport through hybrid coreâ€“shell Au-ZnS quantum dots: a comprehensive analysis from a modified energy structure. Nanoscale, 2021, 13, 4978-4984.	5.6	3
4	Where do the counterions go? Tip-induced dissociation of self-assembled triazatriangulenium-based molecules on Au(111). Physical Chemistry Chemical Physics, 2021, 23, 9930-9937.	2.8	2
5	Persistent Response in an Ultrastrongly Driven Mechanical Membrane Resonator. Physical Review Letters, 2021, 127, 014304.	7.8	7
6	Singleâ€Molecule Doping: Conductance Changed By Transition Metal Centers in Salen Molecules. Advanced Electronic Materials, 2021, 7, 2100252.	5.1	5
7	In-situ control of on-chip angstrom gaps, atomic switches, and molecular junctions by light irradiation. Nano Today, 2021, 39, 101226.	11.9	16
8	Revealing channel polarization of atomic contacts of ferromagnets and strong paramagnets by shot-noise measurements. Physical Review B, 2021, 104, .	3.2	1
9	Mechanically Modulated Sideband and Squeezing Effects of Membrane Resonators. Physical Review Letters, 2021, 127, 184301.	7.8	5
10	Unveiling unconventional magnetism at the surface of Sr2RuO4. Nature Communications, 2021, 12, 5792.	12.8	11
11	Critically Charged Superfluid 4He Surface in Inhomogeneous Electric Fields. Journal of Low Temperature Physics, 2021, 202, 431-443.	1.4	0
12	Unconventional Meissner screening induced by chiral molecules in a conventional superconductor. Physical Review Materials, 2021, 5, .	2.4	11
13	On the reliability of acquiring molecular junction parameters by Lorentzian fitting of I/V curves. Physical Chemistry Chemical Physics, 2020, 22, 26702-26706.	2.8	5
14	Ultraviolet Deactivation of Silane-Functionalized Surfaces: A Scalable Approach for Patterned Nanoparticle Assembly. Journal of Physical Chemistry C, 2020, 124, 19259-19266.	3.1	0
15	Surface Plasmon-Enhanced Switching Kinetics of Molecular Photochromic Films on Gold Nanohole Arrays. Nano Letters, 2020, 20, 5243-5250.	9.1	11
16	Gold Nanoparticle Self-Aggregation on Surface with 1,6-Hexanedithiol Functionalization. Nanomaterials, 2020, 10, 512.	4.1	5
17	Voltage-Induced Rearrangements in Atomic-Size Contacts. Nano Letters, 2020, 20, 5773-5778.	9.1	10
18	Energy scales and dynamics of electronic excitations in functionalized gold nanoparticles measured at the single particle level. Physical Chemistry Chemical Physics, 2019, 21, 13446-13452.	2.8	1

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19	Spatial Modulation of Nonlinear Flexural Vibrations of Membrane Resonators. Physical Review Letters, 2019, 122, 154301.	7.8	17
20	Unidirectional Real-Time Photoswitching of Diarylethene Molecular Monolayer Junctions with Multilayer Graphene Electrodes. ACS Applied Materials & Interfaces, 2019, 11, 11645-11653.	8.0	23
21	Tuning the magnetic anisotropy energy of atomic wires. Physical Review B, 2019, 100, .	3.2	2
22	Stability makes a difference. Nature Nanotechnology, 2019, 14, 925-926.	31.5	1
23	Atomare und molekulare Schalter. , 2019, , 141-151.		0
24	Single-electron transport through stabilised silicon nanocrystals. Nanoscale, 2018, 10, 13949-13958.	5.6	5
25	Facile, non-destructive characterization of 2d photonic crystals using UV-vis-spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 4340-4346.	2.8	5
26	Study of Optical and Magnetic Properties of Graphene-Wrapped ZnO Nanoparticle Hybrids. Langmuir, 2018, 34, 1497-1505.	3.5	14
27	Coulomb Blockade and Multiple Andreev Reflection in a Superconducting Single-Electron Transistor. Journal of Low Temperature Physics, 2018, 191, 301-315.	1.4	2
28	Superconducting properties of lithographic lead break junctions. Nanotechnology, 2018, 29, 045703.	2.6	4
29	Flux-periodicity crossover fromh/2etoh/ein aluminium nano-loops. Journal of Physics: Conference Series, 2018, 969, 012063.	0.4	2
30	Creation of equal-spin triplet superconductivity at the Al/EuS interface. Nature Communications, 2018, 9, 5248.	12.8	39
31	Fast quantitative optical detection of heat dissipation by surface plasmon polaritons. Nanoscale, 2018, 10, 11894-11900.	5.6	3
32	Electronic transport in gadolinium atomic-size contacts. Physical Review B, 2017, 95, .	3.2	4
33	Characterization of thin-film adhesion and phonon lifetimes in Al/Si membranes by picosecond ultrasonics. New Journal of Physics, 2017, 19, 053019.	2.9	31
34	Comparison of cryogenic low-pass filters. Review of Scientific Instruments, 2017, 88, 114703.	1.3	11
35	Synthesis of grapheneâ€“transition metal oxide hybrid nanoparticles and their application in various fields. Beilstein Journal of Nanotechnology, 2017, 8, 688-714.	2.8	93
36	Inelastic electron tunneling spectroscopy of difurylethene-based photochromic single-molecule junctions. Beilstein Journal of Nanotechnology, 2017, 8, 2606-2614.	2.8	11

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37	Thermo-voltage measurements of atomic contacts at low temperature. Beilstein Journal of Nanotechnology, 2016, 7, 767-775.	2.8	7
38	Role of solvents in the electronic transport properties of single-molecule junctions. Beilstein Journal of Nanotechnology, 2016, 7, 1055-1067.	2.8	17
39	Force-noise spectroscopy by tunneling current deflection sensing. Applied Physics Letters, 2016, 108, .	3.3	3
40	Identification of the current path for a conductive molecular wire on a tripodal platform. Nanoscale, 2016, 8, 10582-10590.	5.6	24
41	The Helium Field Effect Transistor (II): Gated Transport of Surface-State Electrons Through Micro-constrictions. Journal of Low Temperature Physics, 2016, 185, 339-353.	1.4	1
42	Tuning the transmission of surface plasmon polaritons across nano and micro gaps in gold stripes. Optics Express, 2016, 24, 17313.	3.4	4
43	Large Magnetoresistance in Single-Radical Molecular Junctions. Nano Letters, 2016, 16, 4960-4967.	9.1	75
44	Magnetism in Pd: Magnetoconductance and transport spectroscopy of atomic contacts. Physical Review B, 2016, 94, .	3.2	6
45	Microwave-induced direct spin-flip transitions in mesoscopic Pd/Co heterojunctions. New Journal of Physics, 2016, 18, 093045.	2.9	8
46	Shot Noise of 1,4-Benzenedithiol Single-Molecule Junctions. Nano Letters, 2016, 16, 1803-1807.	9.1	44
47	Stability of Surface State Electrons on Helium Films. Journal of Low Temperature Physics, 2016, 183, 258-263.	1.4	8
48	Spatially Resolved Measurement of the Stress Tensor in Thin Membranes Using Bending Waves. Physical Review Applied, 2015, 3, .	3.8	6
49	Reversible Switching Phenomenon in Diarylethene Molecular Devices with Reduced Graphene Oxide Electrodes on Flexible Substrates. Advanced Functional Materials, 2015, 25, 5918-5923.	14.9	39
50	Controlling the magnetic structure of Co/Pd thin films by direct laser interference patterning. Nanotechnology, 2015, 26, 205302.	2.6	29
51	Emerging magnetic order in platinum atomic contacts and chains. Nature Communications, 2015, 6, 6172.	12.8	28
52	Lightâ€Induced Switching of Tunable Singleâ€Molecule Junctions. Advanced Science, 2015, 2, 1500017.	11.2	48
53	Vibrational modes of ultrathin carbon nanomembrane mechanical resonators. Applied Physics Letters, 2015, 106, .	3.3	21
54	Time-resolved detection of propagating Lamb waves in thin silicon membranes with frequencies up to 197 GHz. Applied Physics Letters, 2015, 106, 171904.	3.3	10

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55	Signature of magnetic-dependent gapless odd frequency states at superconductor/ferromagnet interfaces. Nature Communications, 2015, 6, 8053.	12.8	113
56	Time-resolved optical measurement of thermal transport by surface plasmon polaritons in thin metal stripes. Applied Physics Letters, 2014, 105, 191119.	3.3	6
57	A DNA that conducts. Nature Nanotechnology, 2014, 9, 960-961.	31.5	11
58	Magnetotransport in atomic-size bismuth contacts. Journal of Physics Condensed Matter, 2014, 26, 474203.	1.8	5
59	Flexible Molecularâ€Scale Electronic Devices Composed of Diarylethene Photoswitching Molecules. Advanced Materials, 2014, 26, 3968-3973.	21.0	72
60	Lateral and Temporal Dependence of the Transport through an Atomic Gold Contact under Light Irradiation: Signature of Propagating Surface Plasmon Polaritons. Nano Letters, 2014, 14, 5218-5223.	9.1	27
61	Pulsed transport of electrons on liquid helium confined in narrow channels. Journal of Physics: Conference Series, 2014, 568, 012008.	0.4	1
62	A current-driven single-atom memory. Nature Nanotechnology, 2013, 8, 645-648.	31.5	119
63	Influence of vibrations on electron transport through nanoscale contacts. Physica Status Solidi (B): Basic Research, 2013, 250, 2468-2480.	1.5	26
64	Fundamental quantum noise mapping with tunnelling microscopes tested at surface structures of subatomic lateral size. Nanoscale, 2013, 5, 9978.	5.6	12
65	Nanosecond laser pulse induced vertical movement of thin gold films on silicon determined by a modified Michelson interferometer. Applied Physics A: Materials Science and Processing, 2013, 110, 321-327.	2.3	4
66	Transmission of surface plasmon polaritons through atomic-size constrictions. New Journal of Physics, 2013, 15, 113014.	2.9	13
67	Switchable zero-bias anomaly in individual C60 molecules contacted with tunable aluminum electrodes. Low Temperature Physics, 2013, 39, 259-264.	0.6	3
68	Ultrafast spectroscopy of super high frequency mechanical modes of doubly clamped beams. Applied Physics Letters, 2013, 103, .	3.3	8
69	Femtosecond spectroscopy of acoustic frequency combs in the 100-GHz frequency range in Al/Si membranes. Physical Review B, 2013, 88, .	3.2	21
70	Electronic transport through short ds<scp>DNA</scp> measured with mechanically controlled break junctions: New thiolâ€“gold binding protocol improves conductance. Physica Status Solidi (B): Basic Research, 2013, 250, 2342-2348.	1.5	8
71	Mapping of plasmonic resonances in nanotriangles. Beilstein Journal of Nanotechnology, 2013, 4, 588-602.	2.8	45
72	Spatial-temporally resolved high-frequency surface acoustic waves on silicon investigated by femtosecond spectroscopy. Applied Physics Letters, 2012, 101, 013108.	3.3	27

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73	Charge Transport in Azobenzene-Based Single-Molecule Junctions. Physical Review Letters, 2012, 109, 226801.	7.8	64
74	Publisherâ€™s Note: Mode shape and dispersion relation of bending waves in thin silicon membranes [Phys. Rev. B85, 035324 (2012)]. Physical Review B, 2012, 86, .	3.2	1
75	Mode shape and dispersion relation of bending waves in thin silicon membranes. Physical Review B, 2012, 85, .	3.2	10
76	Pronounced effects on switching efficiency of diarylcycloalkenes upon cycloalkene ring contraction. Chemical Communications, 2012, 48, 11355.	4.1	16
77	A single-channel microparticle sieve based on Brownian ratchets. Lab on A Chip, 2012, 12, 1238.	6.0	14
78	Charge Transport Characteristics of Diarylethene Photoswitching Single-Molecule Junctions. Nano Letters, 2012, 12, 3736-3742.	9.1	163
79	Quantitative Measurement of the Near-Field Enhancement of Nanostructures by Two-Photon Polymerization. Langmuir, 2012, 28, 9041-9046.	3.5	28
80	Revealing thermal effects in the electronic transport through irradiated atomic metal point contacts. Beilstein Journal of Nanotechnology, 2012, 3, 703-711.	2.8	7
81	Currentâ€“voltage characteristics of single-molecule diarylethene junctions measured with adjustable gold electrodes in solution. Beilstein Journal of Nanotechnology, 2012, 3, 798-808.	2.8	38
82	The Helium Field Effect Transistor (I): Storing Surface State Electrons on Helium Films. Journal of Low Temperature Physics, 2012, 167, 15-25.	1.4	7
83	Electron Transport in Magnetic Quantum Point Contacts. Acta Physica Polonica A, 2012, 121, 401-409.	0.5	1
84	Characteristics of Amine-Ended and Thiol-Ended Alkane Single-Molecule Junctions Revealed by Inelastic Electron Tunneling Spectroscopy. ACS Nano, 2011, 5, 4104-4111.	14.6	90
85	Benzenedithiol: A Broad-Range Single-Channel Molecular Conductor. Nano Letters, 2011, 11, 3734-3738.	9.1	192
86	A thermal diode using phonon rectification. New Journal of Physics, 2011, 13, 113027.	2.9	63
87	Characterization and applications of plasmon fields in metal nanostructures. Proceedings of SPIE, 2011, , .	0.8	5
88	Fabry-PÃƒÂ©rot sensors: microfluidic channels and transparent membranes. , 2011, , .		0
89	Visualization of Near-Field Enhancements of Gold Triangles by Nonlinear Photopolymerization. Plasmonics, 2011, 6, 207-212.	3.4	24
90	Synthesis and Photoswitching Studies of Difurylperfluorocyclopentenes with Extended Ï€â€“Systems. Chemistry - A European Journal, 2011, 17, 6663-6672.	3.3	30

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91	Conductance and Vibrational States of Single-Molecule Junctions Controlled by Mechanical Stretching and Material Variation. Physical Review Letters, 2011, 106, 196804.	7.8	116
92	Evidence for attractive pair interaction in diffusive gold films deduced from studies of the superconducting proximity effect with aluminum. Physical Review B, 2011, 84, .	3.2	21
93	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.	7.8	65
94	High speed pump-probe spectroscopy of Si<inf>3</inf>N<inf>4</inf>-based micromechanical systems. , 2011, , .		0
95	Modification of vibrational damping times in thin gold films by self-assembled molecular layers. Applied Physics Letters, 2011, 98, 261908.	3.3	22
96	Direct Measurement of Electrical Transport Through Gâ€Quadruplex DNA with Mechanically Controllable Break Junction Electrodes. Angewandte Chemie - International Edition, 2010, 49, 3313-3316.	13.8	83
97	Auftrieb durch Wasser und Wind. Physik des Segelns. Physik in Unserer Zeit, 2010, 41, 184-190.	0.0	0
98	Revealing the Role of Anchoring Groups in the Electrical Conduction Through Singleâ€Molecule Junctions. Small, 2010, 6, 1529-1535.	10.0	200
99	Magnetoresistance of atomic-size contacts realized with mechanically controllable break junctions. Physical Review B, 2010, 81, .	3.2	57
100	Optical temperature measurements on thin freestanding silicon membranes. Review of Scientific Instruments, 2010, 81, 114903.	1.3	17
101	Magnetoresistive effects in Co/Pd multilayers on self-assembled nanoparticles (invited). Journal of Applied Physics, 2010, 107, 09C506.	2.5	17
102	Observation of negative differential resistance in DNA molecular junctions. Applied Physics Letters, 2010, 96, .	3.3	45
103	Switchable wiring for high-resolution electronic measurements at very low temperatures. Review of Scientific Instruments, 2009, 80, 024704.	1.3	4
104	Point-contact spectroscopy on aluminium atomic-size contacts: longitudinal and transverse vibronic excitations. New Journal of Physics, 2009, 11, 013036.	2.9	16
105	Optical transmission and laser structuring of silicon membranes. Optics Express, 2009, 17, 15308.	3.4	22
106	Confined longitudinal acoustic phonon modes in free-standing Si membranes coherently excited by femtosecond laser pulses. Physical Review B, 2009, 79, .	3.2	47
107	Modelling partially coherent transport across an island - multiple Andreev reflection and charging effects. Journal of Physics: Conference Series, 2009, 150, 022073.	0.4	0
108	Thiolated Nucleotides for Immobilisation of DNA Oligomers on Gold Surfaces. ChemPhysChem, 2008, 9, 1241-1244.	2.1	13

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109	Electrical characterization of DNA in mechanically controlled break-junctions. New Journal of Physics, 2008, 10, 023030.	2.9	36
110	Influence of chopped laser light onto the electronic transport through atomic-sized contacts. Journal of Microscopy, 2008, 229, 407-414.	1.8	7
111	Electrical characterization of alkane monolayers using micro-transfer printing: tunneling and molecular transport. New Journal of Physics, 2008, 10, 075001.	2.9	5
112	Destructive interference in transfer rates by coherent coupling to a remote reservoir. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 375203.	2.1	0
113	Transfer Green's functions in two-fold interaction systems. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 265202.	2.1	3
114	Nanofabricated adjustable multicontact devices on membranes. Review of Scientific Instruments, 2008, 79, 093901.	1.3	15
115	Coulomb blockade versus coherence in transport through a double junction. Physical Review B, 2007, 76, .	3.2	3
116	Conductance of individualC60molecules measured with controllable gold electrodes. Physical Review B, 2007, 76, .	3.2	75
117	Influence of Laser Light on Electronic Transport through Atomic-Size Contacts. Physical Review Letters, 2007, 99, 086801.	7.8	68
118	A Compact and Versatile Scanning Tunnelling Microscope with High Energy Resolution for Use in a 3He Cryostat. Journal of Low Temperature Physics, 2007, 147, 525-535.	1.4	17
119	Contacting Individual Molecules Using Mechanically Controllable Break Junctions. , 2006, , 253-274.		15
120	Charging effects and Andreev reflection in a double-junction circuit: A model approach combining rate equations and Greenâ€™s functions. Physical Review B, 2006, 74, .	3.2	4
121	Correlation between transport properties and atomic configuration of atomic contacts of zinc by low-temperature measurements. Physical Review B, 2006, 74, .	3.2	14
122	Current Transport at the Atomic Scale. Advanced Engineering Materials, 2005, 7, 795-803.	3.5	7
123	Stable single-atom contacts of zinc whiskers. Applied Physics Letters, 2005, 86, 213115.	3.3	5
124	Structure and conductance histogram of atomic-sized Au contacts. Physical Review B, 2005, 72, .	3.2	134
125	Conduction channels of one-atom zinc contacts. Physical Review B, 2004, 70, .	3.2	9
126	Mechanically controllable break-junctions for use as electrodes for molecular electronics. Nanotechnology, 2004, 15, S465-S471.	2.6	57

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127	Probing the Conduction Channels of Gold Atomic-Size Contacts: Proximity Effect and Multiple Andreev Reflections. , 2002, , 107-119.		1
128	Conductance oscillations in mesoscopic rings: Microscopic versus global phase. Physical Review B, 2001, 64, .	3.2	11
129	Proximity Effect and Multiple Andreev Reflections in Gold Atomic Contacts. Physical Review Letters, 2001, 86, 284-287.	7.8	87
130	Generalized Conductance Sum Rule in Atomic Break Junctions. , 2001, , 215-218.		2
131	Conduction channels of superconducting quantum point contacts. Physica B: Condensed Matter, 2000, 280, 425-431.	2.7	13
132	Conductance Channels of Gold Atomic-Size Contacts. , 2000, , 27-34.		0
133	StromfluÃŸ durch ein einzelnes Atom: Atomâ€Orbitale dienen als TransportkanÃle in metallischen Quantenpunktkontakten. Physik Journal, 1999, 55, 43-46.	0.1	1
134	The signature of chemical valence in the electrical conduction through a single-atom contact. Nature, 1998, 394, 154-157.	27.8	597
135	Angular Dependence of Universal Conductance Fluctuations in Noble-Metal Nanowires. Physical Review Letters, 1997, 78, 3362-3365.	7.8	7
136	Conduction Channel Transmissions of Atomic-Size Aluminum Contacts. Physical Review Letters, 1997, 78, 3535-3538.	7.8	382
137	Geometry dependence of the conductance fluctuations in metallic nanostructures. Physica B: Condensed Matter, 1996, 218, 85-88.	2.7	4
138	Fabrication of noble-metal nanoconstrictions and observation of conductance fluctuations. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 3171.	1.6	6
139	Biquadratic exchange and critical behaviour in the diluted antiferromagnet EuxSr1â˜'xTe. Zeitschrift FÃ¼r Physik B-Condensed Matter, 1993, 92, 475-487.	1.1	20
140	Ferromagnetic transition in dilute Pd-Fe alloys. Physical Review B, 1992, 46, 983-989.	3.2	29
141	Specific heat of EuxSr1â˜'xO near the ferromagnetic phase transition. Zeitschrift FÃ¼r Physik B-Condensed Matter, 1992, 89, 39-43.	1.1	30
142	Critical exponents of EuTe from specific-heat and thermal-expansion measurements. Journal of Magnetism and Magnetic Materials, 1992, 104-107, 175-176.	2.3	13
143	Specific heat of Eu x Sr1â˜'x Te. Zeitschrift FÃ¼r Physik B-Condensed Matter, 1991, 85, 79-86.	1.1	17
144	Specific-heat anomaly of a ferromagnet in finite magnetic fields. Physical Review B, 1989, 40, 5208-5210.	3.2	2