Christian Klinke

List of Publications by Year
in descending order

115 papers	5,642 citations	101496 36 h-index	79644 73 g-index
116 all docs	116 docs citations	116 times ranked	7988 citing authors

#	Article	IF	Citations
1	Ultrathin PbS Sheets by Two-Dimensional Oriented Attachment. Science, 2010, 329, 550-553.	6.0	756
2	Field Emission of Individual Carbon Nanotubes in the Scanning Electron Microscope. Physical Review Letters, 2002, 89, 197602.	2.9	364
3	Synthesis and Thermoelectric Characterization of Bi₂Te₃ Nanoparticles. Advanced Functional Materials, 2009, 19, 3476-3483.	7.8	308
4	Degradation and failure of carbon nanotube field emitters. Physical Review B, 2003, 67, .	1.1	300
5	Carbon nanotube films as electron field emitters. Carbon, 2002, 40, 1715-1728.	5.4	294
6	Radial Elasticity of Multiwalled Carbon Nanotubes. Physical Review Letters, 2005, 94, 175502.	2.9	212
7	Charge Transfer Induced Polarity Switching in Carbon Nanotube Transistors. Nano Letters, 2005, 5, 555-558.	4.5	169
8	Self-aligned carbon nanotube transistors with charge transfer doping. Applied Physics Letters, 2005, 86, 123108.	1.5	136
9	Field-Effect Transistors Assembled from Functionalized Carbon Nanotubes. Nano Letters, 2006, 6, 906-910.	4.5	135
10	Preparation and Electrical Properties of Cobaltâ^'Platinum Nanoparticle Monolayers Deposited by the Langmuirâ^'Blodgett Technique. ACS Nano, 2008, 2, 1123-1130.	7.3	130
11	ZT Enhancement in Solution-Grown Sb_(2â^'x)Bi_xTe₃ Nanoplatelets. ACS Nano, 2010, 4, 4283-4291.	7.3	122
12	Solution-Processed Two-Dimensional Ultrathin InSe Nanosheets. Chemistry of Materials, 2016, 28, 1728-1736.	3.2	113
13	Highly efficient carrier multiplication in PbS nanosheets. Nature Communications, 2014, 5, 3789.	5.8	109
14	Thermoelectric Properties of Lead Chalcogenide Coreâ€“Shell Nanostructures. ACS Nano, 2011, 5, 8541-8551.	7.3	108
15	Correlating Superlattice Polymorphs to Internanoparticle Distance, Packing Density, and Surface Lattice in Assemblies of PbS Nanoparticles. Nano Letters, 2013, 13, 1303-1311.	4.5	107
16	Quantum Dot Attachment and Morphology Control by Carbon Nanotubes. Nano Letters, 2007, 7, 3564-3568.	4.5	101
17	Tungsten Oxide Nanowire Growth by Chemically Induced Strain. Journal of Physical Chemistry B, 2005, 109, 17787-17790.	1.2	76
18	Monodisperse Multiwall Carbon Nanotubes Obtained with Ferritin as Catalyst. Nano Letters, 2002, 2, 665-667.	4.5	74

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19	Copper sulfide nanosheets with shape-tunable plasmonic properties in the NIR region. Nanoscale, 2018, 10, 20640-20651.	2.8	74
20	Hindered rolling and friction anisotropy in supported carbon nanotubes. Nature Materials, 2009, 8, 876-881.	13.3	70
21	Shape Evolution of CdSe Nanoparticles Controlled by Halogen Compounds. Chemistry of Materials, 2014, 26, 1813-1821.	3.2	65
22	Raman Spectroscopy and Field Emission Measurements on Catalytically Grown Carbon Nanotubes. Journal of Physical Chemistry B, 2002, 106, 11191-11195.	1.2	62
23	Fieldâ€“effect transistors made of individual colloidal PbS nanosheets. Applied Physics Letters, 2012, 101, 073102.	1.5	60
24	Thermodynamic calculations on the catalytic growth of multiwall carbon nanotubes. Physical Review B, 2005, 71, .	1.1	59
25	Comparative study of the catalytic growth of patterned carbon nanotube films. Surface Science, 2001, 492, 195-201.	0.8	53
26	Growth of carbon nanotubes characterized by field emission measurements during chemical vapor deposition. Physical Review B, 2003, 67, .	1.1	52
27	Selective Placement of Carbon Nanotubes on Metal-Oxide Surfaces. Langmuir, 2005, 21, 8569-8571.	1.6	50
28	Tailoring the Height of Ultrathin PbS Nanosheets and Their Application as Field-Effect Transistors. Small, 2015, 11, 826-833.	5.2	48
29	Competing Interactions between Various Entropic Forces toward Assembly of Pt₃Ni Octahedra into a Body-Centered Cubic Superlattice. Nano Letters, 2016, 16, 2792-2799.	4.5	48
30	In-situ Polymerization of Olefins on Nanoparticles or Fibers by Metallocene Catalysts. Topics in Catalysis, 2008, 48, 84-90.	1.3	45
31	CdS Nanoparticles Capped with 1-Substituted 5-Thiotetrazoles: Synthesis, Characterization, and Thermolysis of the Surfactant. Chemistry of Materials, 2008, 20, 4545-4547.	3.2	45
32	Field Effect and Photoconduction in Au₂₅ Nanoclusters Films. Advanced Materials, 2019, 31, e1900684.	11.1	42
33	Size, Shape, and Phase Control in Ultrathin CdSe Nanosheets. Nano Letters, 2017, 17, 4165-4171.	4.5	41
34	Carbon Supported CdSe Nanocrystals. Journal of the American Chemical Society, 2008, 130, 15282-15284.	6.6	40
35	On the Electric Conductivity of Highly Ordered Monolayers of Monodisperse Metal Nanoparticles. Nano Letters, 2009, 9, 473-478.	4.5	40
36	Two-dimensional halide perovskites: synthesis, optoelectronic properties, stability, and applications. Nanoscale, 2021, 13, 12394-12422.	2.8	38

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37	3-D characterization of CdSe nanoparticles attached to carbon nanotubes. Nano Research, 2008, 1, 89-97.	5.8	37
38	Photovoltaic effect in individual asymmetrically contacted lead sulfide nanosheets. Nanoscale, 2015, 7, 4875-4883.	2.8	37
39	A New Synthesis Approach for Carbon Nitrides: Poly(triazine imide) and Its Photocatalytic Properties. ACS Omega, 2018, 3, 3892-3900.	1.6	37
40	Colloidal Manganese-Doped ZnS Nanoplatelets and Their Optical Properties. Chemistry of Materials, 2021, 33, 275-284.	3.2	36
41	Enhanced Field Emission from Multiwall Carbon Nanotube Films by Secondary Growth. Journal of Physical Chemistry B, 2005, 109, 21677-21680.	1.2	33
42	Synthesis of InP Nanoneedles and Their Use as Schottky Devices. ACS Nano, 2009, 3, 668-672.	7.3	33
43	From Dots to Stripes to Sheets: Shape Control of Lead Sulfide Nanostructures. Chemistry of Materials, 2015, 27, 8248-8254.	3.2	32
44	Reversible Attachment of Platinum Alloy Nanoparticles to Nonfunctionalized Carbon Nanotubes. ACS Nano, 2010, 4, 2438-2444.	7.3	31
45	Tailoring the diameter of decorated Câ€“N nanotubes by temperature variations using HF-CVD. Carbon, 2001, 39, 2163-2172.	5.4	30
46	Metal nanoparticle filmâ€“based room temperature Coulomb transistor. Science Advances, 2017, 3, e1603191.	4.7	28
47	Virtually Bare Nanocrystal Surfaces: Significantly Enhanced Electrical Transport in CuInSe₂ and CuIn_{1â^'x}Ga_xSe₂ Thin Films upon Ligand Exchange with Thermally Degradable 1â€Ethylâ€5â€Thiotetrazole. Advanced Functional Materials, 2014, 24, 1081-1088.	7.8	26
48	Towards colloidal spintronics through Rashba spin-orbit interaction in lead sulphide nanosheets. Nature Communications, 2017, 8, 15721.	5.8	26
49	In Situ Constructing the Kinetic Roadmap of Octahedral Nanocrystal Assembly Toward Controlled Superlattice Fabrication. Journal of the American Chemical Society, 2021, 143, 4234-4243.	6.6	23
50	Spin-dependent magnetoresistance in multiwall carbon nanotubes. Europhysics Letters, 2004, 67, 103-109.	0.7	22
51	Interaction of solid organic acids with carbon nanotube field effect transistors. Chemical Physics Letters, 2006, 430, 75-79.	1.2	22
52	Growth and reductive transformation of a gold shell around pyramidal cadmium selenide nanocrystals. Journal of Materials Chemistry, 2010, 20, 10602.	6.7	22
53	Interfacing Quantum Dots and Graphitic Surfaces with Chlorine Atomic Ligands. ACS Nano, 2013, 7, 2559-2565.	7.3	22
54	Anisotropic circular photogalvanic effect in colloidal tin sulfide nanosheets. Nanoscale, 2020, 12, 6256-6262.	2.8	22

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55	From Wurtzite Nanoplatelets to Zinc Blende Nanorods: Simultaneous Control of Shape and Phase in Ultrathin ZnS Nanocrystals. Journal of Physical Chemistry Letters, 2019, 10, 3828-3835.	2.1	21
56	Tunable Electrical Transport through Annealed Monolayers of Monodisperse Cobaltâ˜Platinum Nanoparticles. ACS Nano, 2011, 5, 67-72.	7.3	20
57	Molecular Doping of Electrochemically Prepared Triazine-Based Carbon Nitride by 2,4,6-Triaminopyrimidine for Improved Photocatalytic Properties. ACS Omega, 2018, 3, 17042-17048.	1.6	20
58	In-Plane Anisotropic Faceting of Ultralarge and Thin Single-Crystalline Colloidal SnS Nanosheets. Journal of Physical Chemistry Letters, 2019, 10, 993-999.	2.1	20
59	Formation of Metallic Nanocrystals from Gel-like Precursor Films for CVD Nanotube Growth:â€‰ An in Situ TEM Characterization. Journal of Physical Chemistry B, 2004, 108, 11357-11360.	1.2	19
60	Charge Redistribution and Extraction in Photocatalytically Synthesized Auâ€“ZnO Nanohybrids. Journal of Physical Chemistry C, 2015, 119, 21704-21710.	1.5	19
61	Photoexcitation of PbS nanosheets leads to highly mobile charge carriers and stable excitons. Nanoscale, 2019, 11, 21569-21576.	2.8	19
62	Structural Reconstruction in Lead-Free Two-Dimensional Tin Iodide Perovskites Leading to High Quantum Yield Emission. ACS Energy Letters, 2022, 7, 975-983.	8.8	19
63	Influence of the deposition conditions on the field emission properties of patterned nitrogenated carbon nanotube films. Chemical Physics Letters, 2001, 343, 21-27.	1.2	18
64	Colloidal tin sulfide nanosheets: formation mechanism, ligand-mediated shape tuning and photo-detection. Journal of Materials Chemistry C, 2018, 6, 9410-9419.	2.7	17
65	Supramolecular Interaction of Single-Walled Carbon Nanotubes with a Functional TTF-Based Mediator Probed by Field-Effect Transistor Devices. Journal of Physical Chemistry C, 2012, 116, 20062-20066.	1.5	16
66	Metal Domain Size Dependent Electrical Transport in Pt-CdSe Hybrid Nanoparticle Monolayers. ACS Nano, 2015, 9, 6077-6087.	7.3	16
67	Coulomb blockade based field-effect transistors exploiting stripe-shaped channel geometries of self-assembled metal nanoparticles. Nanoscale, 2016, 8, 14384-14392.	2.8	16
68	Oxygen and light sensitive field-effect transistors based on ZnO nanoparticles attached to individual double-walled carbon nanotubes. Nanoscale, 2012, 4, 251-256.	2.8	15
69	Synthesis and Characterization of Monodisperse Metallodielectric SiO₂@Pt@SiO₂ Coreâ€“Shellâ€“Shell Particles. Langmuir, 2016, 32, 848-857.	1.6	15
70	Highâ€Performance nâ€•and pâ€Type Fieldâ€Effect Transistors Based on Hybridly Surfaceâ€Passivated Colloidal PbS Nanosheets. Advanced Functional Materials, 2018, 28, 1706815.	7.8	15
71	Insights into the formation mechanism of two-dimensional lead halide nanostructures. Nanoscale, 2018, 10, 4442-4451.	2.8	15
72	Colloidal Two-Dimensional Metal Chalcogenides: Realization and Application of the Structural Anisotropy. Accounts of Chemical Research, 2021, 54, 3792-3803.	7.6	15

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73	Iron nanoparticle formation in a metalâ€“organic matrix: from ripening to gluttony. Nanotechnology, 2007, 18, 215601.	1.3	14
74	Preparation of high-yield and ultra-pure Au₂₅ nanoclusters: towards their implementation in real-world applications. Nanoscale, 2019, 11, 1988-1994.	2.8	14
75	Micron-Size Two-Dimensional Methylammonium Lead Halide Perovskites. ACS Nano, 2019, 13, 6955-6962.	7.3	14
76	Postdeposition Ligand Exchange Allows Tuning the Transport Properties of Largeâ€Scale CuInSe 2 Quantum Dot Solids. Advanced Optical Materials, 2020, 8, 1901058.	3.6	14
77	Vertically Oriented Carbon Nanostructures and Their Application Potential for Polymer-Based Solar Cells. Journal of Physical Chemistry C, 2012, 116, 412-419.	1.5	13
78	Cl-capped CdSe nanocrystals via in situ generation of chloride anions. Nanoscale, 2014, 6, 6812-6818.	2.8	13
79	Sculpting of Lead Sulfide Nanoparticles by Means of Acetic Acid and Dichloroethane. Zeitschrift Fur Physikalische Chemie, 2015, 229, 139-151.	1.4	12
80	Attachment of Colloidal Nanoparticles to Boron Nitride Nanotubes. Chemistry of Materials, 2017, 29, 726-734.	3.2	12
81	Robust controller design for multivariable nonlinear systems via multi-model H2/Hâˆž synthesis. Chemical Engineering Science, 2001, 56, 4339-4349.	1.9	11
82	Morphology dependence of radial elasticity in multiwalled boron nitride nanotubes. Applied Physics Letters, 2012, 101, 103109.	1.5	11
83	Metal nanoclusterâ€based devices: Challenges and opportunities. Aggregate, 2022, 3, e132.	5.2	11
84	Adhesion and size dependent friction anisotropy in boron nitride nanotubes. Nanotechnology, 2012, 23, 455706.	1.3	9
85	Solution-Grown Nanowire Devices for Sensitive and Fast Photodetection. ACS Applied Materials & Interfaces, 2015, 7, 12184-12192.	4.0	9
86	New ways to synthesize lead sulfide nanosheetsâ€”substituted alkanes direct the growth of 2D nanostructures. Nanotechnology, 2016, 27, 355602.	1.3	9
87	Shell or Dots â” Precursor Controlled Morphology of Auâ€“Se Deposits on CdSe Nanoparticles. Chemistry of Materials, 2016, 28, 2704-2714.	3.2	8
88	Simulation study of environmentally friendly quantum-dot-based photovoltaic windows. Journal of Materials Chemistry C, 2017, 5, 11790-11797.	2.7	8
89	Role of Magnetic Coupling in Photoluminescence Kinetics of Mn²⁺-Doped ZnS Nanoplatelets. ACS Applied Materials & Interfaces, 2022, 14, 18806-18815.	4.0	8
90	Air-stable chemical doping of carbon nanotube transistors. , 0, , .		7

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91	Sliding on a Nanotube: Interplay of Friction, Deformations and Structure. Advanced Materials, 2012, 24, 2879-2884.	11.1	7
92	Metal nanoparticle field-effect transistor. Journal of Applied Physics, 2013, 114, .	1.1	7
93	Synthesis of Single-Crystalline Lead Sulfide Nanoframes and Nanorings. Chemistry of Materials, 2019, 31, 5646-5654.	3.2	6
94	Electrical transport through self-assembled colloidal nanomaterials and their perspectives. Europhysics Letters, 2017, 119, 36002.	0.7	5
95	Halogens in the Synthesis of Colloidal Semiconductor Nanocrystals. Zeitschrift Fur Physikalische Chemie, 2018, 232, 1267-1280.	1.4	5
96	Function Follows Form: From Semiconducting to Metallic toward Superconducting PbS Nanowires by Faceting the Crystal. Advanced Functional Materials, 2020, 30, 1910503.	7.8	5
97	Mechanistic insights and selected synthetic routes of atomically precise metal nanoclusters. Nano Select, 2021, 2, 831-846.	1.9	5
98	Surface Defines the Properties: Colloidal Bi2Se3 Nanosheets with High Electrical Conductivity. Journal of Physical Chemistry C, 2021, 125, 6442-6448.	1.5	5
99	Singleâ€Crystalline Colloidal Quasiâ€2D Tin Telluride. Advanced Materials Interfaces, 2020, 7, 2000410.	1.9	5
100	Colloidal lead iodide nanorings. Nanoscale, 2018, 10, 21197-21208.	2.8	4
101	Controlled Growth and Applications of Carbon Nanotubes. Chimia, 2002, 56, 547-552.	0.3	3
102	Modeling adsorbateâ€induced property changes of carbon nanotubes. Journal of Computational Chemistry, 2017, 38, 861-868.	1.5	3
103	Patterned growth of carbon nanotubes on borosilicate glass. AIP Conference Proceedings, 2001, , .	0.3	1
104	Charge transferred doping and electroluminescence in carbon nanotube transistors. , 0, , .		1
105	Rashba Spin-Orbit Coupling in Colloidal Lead Sulfide Nanosheets. , 2017, , .		1
106	Thermodynamic calculations on the catalytic growth of carbon nanotubes. AIP Conference Proceedings, 2003, , .	0.3	0
107	Colloidal nanostructures as building blocks for macroscopic thermoelectric materials with electron-crystal phonon-glass properties. Materials Research Society Symposia Proceedings, 2010, 1267, 1.	0.1	0
108	Lead Sulfide: Tailoring the Height of Ultrathin PbS Nanosheets and Their Application as Field-Effect Transistors (Small 7/2015). Small, 2015, 11, 888-888.	5.2	0

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109	Hierarchical Colloidal Nanostructures â€“ from Fundamentals to Applications. Zeitschrift Fur Physikalische Chemie, 2017, 231, 1-5.	1.4	0
110	Two-Dimensional Nanostructures: Synthesis and Optoelectronic Transport. , 0, , .		0
111	Thermoelectric Properties of Aerogels of PbS Nanoplatelets. , 0, , .		0
112	Colloidal Two-Dimensional PbS Nanosheets and Ultrathin PbS Nanoplatelets â€“ High Mobility vs. Photoluminescence Properties. , 0, , .		0
113	Shape and Size Control of the Synthesis of 2D Tin Sulfide (SnS) Nanosheets and Electronic Application. , 0, , .		0
114	Thermoelectric Properties of Aerogels of PbS Nanoplatelets. , 0, , .		0
115	Two-Dimensional Nanostructures: Synthesis and Optoelectronic Transport. , 0, , .		0