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List of Publications by Year
in descending order

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97 papers	3,499 citations	201674 27 h-index	138484 58 g-index
99 all docs	99 docs citations	99 times ranked	3876 citing authors

#	Article	IF	Citations
1	All-in-one superparamagnetic and SERS-active niosomes for dual-targeted in vitro detection of breast cancer cells. Sensors & Diagnostics, 2022, 1, 469-484.	3.8	7
2	Top-Down Formulation of Goethite Nanosuspensions for the Production of Transparent, Inorganic Glass Coatings. Coatings, 2022, 12, 330.	2.6	1
3	Polymeric nanocomposites for lithiumâ€“sulfur batteries. , 2022, , 389-424.		0
4	Micromechanical properties of spray-dried core-shell silica aggregates along with drug release tests. Jcis Open, 2022, 6, 100052.	3.2	4
5	Simple model of the electrophoretic migration of spherical and rod-shaped Au nanoparticles in gels with varied mesh sizes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 651, 129716.	4.7	4
6	Amorphization and modified release of ibuprofen by post-synthetic and solvent-free loading into tailored silica aerogels. Drug Delivery, 2022, 29, 2086-2099.	5.7	6
7	Comprehensive Characterization of APTES Surface Modifications of Hydrous Boehmite Nanoparticles. Langmuir, 2021, 37, 171-179.	3.5	25
8	Crystal engineering of nanomaterials: current insights and prospects. CrystEngComm, 2021, 23, 7916-7927.	2.6	4
9	Effect of the Anionic Counterpart: Molybdate vs. Tungstate in Energy Storage for Pseudo-Capacitor Applications. Nanomaterials, 2021, 11, 580.	4.1	46
10	In-Vitro Application of Magnetic Hybrid Niosomes: Targeted siRNA-Delivery for Enhanced Breast Cancer Therapy. Pharmaceutics, 2021, 13, 394.	4.5	32
11	Magnetic Nanoparticle-Based Dianthin Targeting for Controlled Drug Release Using the Endosomal Escape Enhancer SO1861. Nanomaterials, 2021, 11, 1057.	4.1	7
12	Transferrin-Decorated Niosomes with Integrated InP/ZnS Quantum Dots and Magnetic Iron Oxide Nanoparticles: Dual Targeting and Imaging of Glioma. International Journal of Molecular Sciences, 2021, 22, 4556.	4.1	18
13	Particle Surface Modification. Research Topics in Aerospace, 2021, , 119-142.	0.7	2
14	Phase Transitions of Polarised PVDF Films in a Standard Curing Process for Composites. Polymers, 2021, 13, 3900.	4.5	14
15	Crystal growth of nanomaterials. CrystEngComm, 2021, 23, 7874-7875.	2.6	0
16	Stepâ€byâ€step monitoring of a magnetic and SERSâ€active immunosensor assembly for purification and detection of tau protein. Journal of Biophotonics, 2020, 13, e201960090.	2.3	16
17	Herstellung von Nanokompositâ€Ã¼nnschichten mit speziellen magnetischen Eigenschaften aus nanopartikulÃren Bausteinen. Chemie-Ingenieur-Technik, 2020, 92, 1810-1820.	0.8	0
18	Evaluation of the Dispersion Stability of AZO Mesocrystals for Their Processing into Functional Thin Films Using Small Angle X-ray Scattering. Crystals, 2020, 10, 374.	2.2	1

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19	Crystal engineering for electrochemical applications. CrystEngComm, 2020, 22, 1498-1499.	2.6	6
20	Formation of Aluminumâ€Doped Zinc Oxide Nanocrystals via the Benzylamine Route at Low Reaction Kinetics. Chemical Engineering and Technology, 2020, 43, 797-803.	1.5	3
21	Exchange Bias in FePtâ€“FePt₃ Thin Films by Controlled Phase Transition of Blended Nanoparticle Building Blocks. Langmuir, 2020, 36, 2093-2101.	3.5	6
22	Restricted and Unrestricted Migration Mechanisms of Silica Nanoparticles in Agarose Gels and Their Utilization for the Separation of Binary Mixtures. Journal of Physical Chemistry C, 2020, 124, 5157-5166.	3.1	8
23	A Hybrid Electrochemical Energy Storage Device Using Sustainable Electrode Materials. ChemistrySelect, 2020, 5, 1597-1606.	1.5	27
24	Dimensional characterization of cadmium selenide nanocrystals via indirect Fourier transform evaluation of small-angle X-ray scattering data. Nano Research, 2019, 12, 2849-2857.	10.4	8
25	Rapid Microfluidic Preparation of Niosomes for Targeted Drug Delivery. International Journal of Molecular Sciences, 2019, 20, 4696.	4.1	42
26	Spray-Dried Hierarchical Aggregates of Iron Oxide Nanoparticles and Their Functionalization for Downstream Processing in Biotechnology. ACS Omega, 2019, 4, 16300-16308.	3.5	9
27	Structural characterization and magnetic property determination of nanocrystalline Ba₃Fe₂WO₉ and Sr₃Fe₂WO₉ perovskites prepared by a modified aqueous solâ€gel route. CrystEngComm, 2019, 21, 218-227.	2.6	12
28	Development of a growth model for aluminum-doped zinc oxide nanocrystal synthesis via the benzylamine route. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	4
29	Investigation on the Effects of Nanoparticles on Cutting Fluid Properties and Tribological Characteristics. International Journal of Precision Engineering and Manufacturing - Green Technology, 2019, 6, 433-447.	4.9	19
30	Particle-reinforced and functionalized hydrogels for SpineMan, a soft robotics application. Journal of Materials Science, 2019, 54, 4444-4456.	3.7	12
31	Chemical Cross-Linking of Anatase Nanoparticle Thin Films for Enhanced Mechanical Properties. Langmuir, 2018, 34, 6109-6116.	3.5	8
32	Evaluation of Processes for Mechanical Manufacturing of Composite Materials for Liâ€Sulfur Batteries. Chemie-Ingenieur-Technik, 2018, 90, 513-520.	0.8	7
33	Impact of nanoparticle surface modification on the mechanical properties of polystyrene-based nanocomposites. RSC Advances, 2018, 8, 11109-11118.	3.6	24
34	Selective manipulation of superparamagnetic nanoparticles for product purification and microfluidic diagnostics. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 126, 67-74.	4.3	5
35	Secondary Particle Formation during the Nonaqueous Synthesis of Metal Oxide Nanocrystals. Langmuir, 2018, 34, 12834-12844.	3.5	7
36	Microfluidic synthesis of metal oxide nanoparticles via the nonaqueous method. Chemical Engineering Science, 2018, 191, 500-510.	3.8	33

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37	Process and Formulation Strategies to Improve Adhesion of Nanoparticulate Coatings on Stainless Steel. Coatings, 2018, 8, 156.	2.6	3
38	Non-Aqueous Sol-Gel Synthesis of FePt Nanoparticles in the Absence of In Situ Stabilizers. Nanomaterials, 2018, 8, 297.	4.1	10
39	Experimental and numerical insights into the formation of zirconia nanoparticles: a population balance model for the nonaqueous synthesis. Reaction Chemistry and Engineering, 2017, 2, 337-348.	3.7	16
40	In situ affinity purification of his-tagged protein A from Bacillus megaterium cultivation using recyclable superparamagnetic iron oxide nanoparticles. Journal of Biotechnology, 2017, 242, 55-63.	3.8	24
41	Enhancement of the Mechanical Properties of Nanoparticulate Thin Coatings via Surface Modification and Crossâ€Linking Additive. Chemical Engineering and Technology, 2017, 40, 1561-1568.	1.5	6
42	Fabrication of carbon-sulphur composites via a vibration mill process as cathode material for lithium sulphur batteries. Energy Storage Materials, 2017, 9, 70-77.	18.0	21
43	Integrated in situ -purification of recombinant proteins from Bacillus megaterium cultivation using SPION in stirred tank reactors. Biochemical Engineering Journal, 2017, 126, 58-67.	3.6	8
44	New Contact Probe and Method to Measure Electrical Resistances in Battery Electrodes. Energy Technology, 2016, 4, 1550-1557.	3.8	2
45	Thin indium tin oxide nanoparticle films as hole transport layer in inverted organic solar cells. Thin Solid Films, 2016, 616, 419-424.	1.8	6
46	Fractal growth of ZrO₂nanoparticles induced by synthesis conditions. CrystEngComm, 2016, 18, 8396-8405.	2.6	24
47	Formation of a Dimeric Precursor Intermediate during the Nonaqueous Synthesis of Titanium Dioxide Nanocrystals. ChemNanoMat, 2016, 2, 1073-1076.	2.8	8
48	Verbesserung von Kunstharzbeschichtungen durch Nanopartikel mit maÃŸgeschneiderter OberflÃchenmodifizierung. Chemie-Ingenieur-Technik, 2016, 88, 958-966.	0.8	1
49	Influence of surface modification on structure formation and micromechanical properties of spray-dried silica aggregates. Journal of Colloid and Interface Science, 2016, 464, 183-190.	9.4	19
50	Study of the growth of hydrophilic iron oxide nanoparticles obtained via the non-aqueous solâ€“gel method. Journal of Sol-Gel Science and Technology, 2016, 77, 553-564.	2.4	24
51	Actuation principles for the bioinspired soft robotic manipulator spineman. , 2015, , .		4
52	SpineMan: Design of a soft robotic spine-like manipulator for safe human-robot interaction. , 2015, , .		7
53	Small-Molecule Stabilization Mechanisms of Metal Oxide Nanoparticles. , 2015, , 73-91.		4
54	Aluminum zinc oxide nanostructures with customized size and shape by non-aqueous synthesis. CrystEngComm, 2015, 17, 6878-6883.	2.6	14

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55	Hierarchical Structure Formation of Nanoparticulate Spray-Dried Composite Aggregates. ACS Nano, 2015, 9, 10749-10757.	14.6	65
56	Facile surface tailoring of metal oxide nanoparticles via a two-step modification approach. RSC Advances, 2015, 5, 60993-60999.	3.6	30
57	Oriented attachment of ultra-small Mn_(1â^'x)Zn_xFe₂O₄nanoparticles during the non-aqueous solâ€“gel synthesis. CrystEngComm, 2015, 17, 2464-2470.	2.6	26
58	Influence of TiO2 nanoparticle synthesis on the properties of thin coatings. Thin Solid Films, 2015, 574, 20-27.	1.8	12
59	Prozesstechnisches VerstÃndnis der nichtwÃssrigen Synthese von Metalloxid-Nanopartikeln. Chemie-Ingenieur-Technik, 2014, 86, 1541-1541.	0.8	0
60	Influence of Process Parameters on the Nonaqueous Synthesis of TiO₂ Nanoparticles. Chemie-Ingenieur-Technik, 2014, 86, 231-237.	0.8	1
61	Formation of magnetic nanoparticles studied during the initial synthesis stage. Hyperfine Interactions, 2014, 224, 57-63.	0.5	3
62	Study of the growth process of magnetic nanoparticles obtained via the non-aqueous solâ€“gel method. Journal of Materials Science, 2014, 49, 4705-4714.	3.7	33
63	Functionalization of magnetic nanoparticles with high-binding capacity for affinity separation of therapeutic proteins. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	14
64	Phase-controlled synthesis of ZrO₂nanoparticles for highly transparent dielectric thin films. CrystEngComm, 2014, 16, 3366-3375.	2.6	63
65	Parameter studies of the synthesis of titanium dioxide nanoparticles: Effect on particle formation and size. Chemical Engineering and Processing: Process Intensification, 2013, 74, 83-89.	3.6	14
66	High integration density capacitors directly integrated in a single copper layer of printed circuit boards. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 298-304.	2.9	13
67	Formation Mechanisms of Iron Oxide Nanoparticles in Different Nonaqueous Media. Crystal Growth and Design, 2012, 12, 1469-1475.	3.0	52
68	Unspecific ligand binding yielding stable colloidal ITO-nanoparticle dispersions. Chemical Communications, 2012, 48, 1464-1466.	4.1	35
69	Spontaneous water release inducing nucleation during the nonaqueous synthesis of TiO2 nanoparticles. CrystEngComm, 2012, 14, 8562.	2.6	27
70	Comparative Study of Ligand Binding during the Postsynthetic Stabilization of Metal Oxide Nanoparticles. Langmuir, 2012, 28, 14395-14404.	3.5	37
71	Fabrication of Optimized Nanocomposites Employing Chemically Modified Nanoparticles. Chemie-Ingenieur-Technik, 2012, 84, 301-308.	0.8	2
72	Nanokomposite mit chemisch optimierten Partikel-Polymer-GrenzflÃchen. Chemie-Ingenieur-Technik, 2012, 84, 1321-1322.	0.8	0

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73	Fabrication of transparent polymer-matrix nanocomposites with enhanced mechanical properties from chemically modified ZrO2 nanoparticles. Journal of Materials Science, 2012, 47, 2665-2674.	3.7	25
74	Influence of Pyrogenic Particles on the Micromechanical Behavior of Thin Solâ€“Gel Layers. Langmuir, 2011, 27, 8396-8403.	3.5	10
75	Ceramic Thin Films for High Integration Density Capacitor Applications. Materials Research Society Symposia Proceedings, 2011, 1303, 151.	0.1	0
76	Synthesis and Dispersion of Ultra-Small Binary and Ternary Metal Oxide Nanoparticles for Dielectric Thin Films. Materials Research Society Symposia Proceedings, 2011, 1303, 163.	0.1	1
77	Die nichtâ€wÃssrige Solâ€Gelâ€Synthese â€“ eine Alternative fÃ¼r die Herstellung hochqualitativer Metalloxidâ€• Nanopartikel. Chemie-Ingenieur-Technik, 2010, 82, 615-622.	0.8	2
78	Prozesstechnik der nichtwÃssrigen Synthese von Metalloxidnanopartikeln. Chemie-Ingenieur-Technik, 2010, 82, 1471-1471.	0.8	0
79	Herstellung und Einsatz maÃŸgeschneiderter Metalloxid-Nanopartikel. Chemie-Ingenieur-Technik, 2010, 82, 1455-1455.	0.8	0
80	Small-molecule in situ stabilization of TiO2 nanoparticles for the facile preparation of stable colloidal dispersions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 372, 41-47.	4.7	22
81	Synthesis of Luminescent ZrO₂:Eu³⁺ Nanoparticles and Their Holographic Subâ€Micrometer Patterning in Polymer Composites. Advanced Functional Materials, 2009, 19, 1819-1825.	14.9	114
82	In situ investigation of molecular kinetics and particle formation of water-dispersible titania nanocrystals. Physical Chemistry Chemical Physics, 2009, 11, 3767.	2.8	32
83	Benzylamines as Versatile Agents for the Oneâ€Pot Synthesis and Highly Ordered Stacking of Anatase Nanoplatelets. European Journal of Inorganic Chemistry, 2008, 2008, 890-895.	2.0	29
84	Organic chemistry in inorganic nanomaterials synthesis. Journal of Materials Chemistry, 2008, 18, 1171-1182.	6.7	119
85	Surface Modification of ZrO₂ Nanoparticles as Functional Component in Optical Nanocomposite Devices. Materials Research Society Symposia Proceedings, 2008, 1076, 1.	0.1	11
86	Dispersion Behavior of Zirconia Nanocrystals and Their Surface Functionalization with Vinyl Group-Containing Ligands. Langmuir, 2007, 23, 9178-9187.	3.5	117
87	Largeâ€Scale Synthesis of Organophilic Zirconia Nanoparticles and their Application in Organicâ€“Inorganic Nanocomposites for Efficient Volume Holography. Small, 2007, 3, 1626-1632.	10.0	175
88	Nonaqueous and Surfactant-Free Synthesis Routes to Metal Oxide Nanoparticles. Journal of the American Ceramic Society, 2006, 89, 1801-1808.	3.8	134
89	Nonaqueous synthesis of metal oxide nanoparticles:Review and indium oxide as case study for the dependence of particle morphology on precursors and solvents. Journal of Sol-Gel Science and Technology, 2006, 40, 259-266.	2.4	136
90	Organic Reaction Pathways in the Nonaqueous Synthesis of Metal Oxide Nanoparticles. Chemistry - A European Journal, 2006, 12, 7282-7302.	3.3	439

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91	Non-aqueous routes to crystalline metal oxide nanoparticles: Formation mechanisms and applications. Progress in Solid State Chemistry, 2005, 33, 59-70.	7.2	140
92	Nonaqueous synthesis of crystalline anatase nanoparticles in simple ketones and aldehydes as oxygen-supplying agents. Chemical Communications, 2005, , 397.	4.1	81
93	A General Nonaqueous Route to Binary Metal Oxide Nanocrystals Involving a Câ^'C Bond Cleavage. Journal of the American Chemical Society, 2005, 127, 5608-5612.	13.7	209
94	Non-Aqueous Synthesis of High-Purity Metal Oxide Nanopowders Using an Ether Elimination Process. Advanced Materials, 2004, 16, 2196-2200.	21.0	157
95	Nonaqueous and Halide-Free Route to Crystalline BaTiO3, SrTiO3, and (Ba,Sr)TiO3Nanoparticles via a Mechanism Involving Câ^'C Bond Formation. Journal of the American Chemical Society, 2004, 126, 9120-9126.	13.7	265
96	Tailoring the Surface and Solubility Properties of Nanocrystalline Titania by a Nonaqueous In Situ Functionalization Process. Chemistry of Materials, 2004, 16, 1202-1208.	6.7	223
97	Backscattering-Based Discrimination of Microparticles Using an Optofluidic Multiangle Scattering Chip. ACS Omega, 0, , .	3.5	0