Lutz Mdler

List of Publications by Year in Descending Order

214 papers	25,619 citations	56 h-index	159 g-index
223 ext. papers	27,710 ext. citations	6.4 avg, IF	6.93 L-index

#	Paper	IF	Citations
214	Digital research data: from analysis of existing standards to a scientific foundation for a modular metadata schema in nanosafety.. *Particle and Fibre Toxicology*, **2022**, 19, 1	8.4	2
213	Microexplosions of multicomponent drops in spray flames. *Combustion and Flame*, **2022**, 240, 112043	5.3	0
212	Properties of gas-atomized Cu-Ti-based metallic glass powders for additive manufacturing. *Materials and Design*, **2022**, 215, 110519	8.1	2
211	A Discrete Differential Geometric Formulation of Multiphase Surface Interfaces for Scalable Multiphysics Equilibrium Simulations. *Chemical Engineering Science*, **2022**, 117681	4.4	0
210	Double Flame-Fabricated High-Performance AlPO/LiMnO Cathode Material for Li-Ion Batteries. *ACS Applied Energy Materials*, **2021**, 4, 4428-4443	6.1	2
209	Comparing Co-catalytic Effects of ZrOx, SmOx, and Pt on COx Methanation over Co-based Catalysts Prepared by Double Flame Spray Pyrolysis. *ChemCatChem*, **2021**, 13, 2815-2831	5.2	1
208	Control of Porous Layer Thickness in Thermophoretic Deposition of Nanoparticles. *Materials*, **2021**, 14,	3.5	1
207	Phase-selective laser induced breakdown spectroscopy in flame spray pyrolysis for iron oxide nanoparticle synthesis. *Proceedings of the Combustion Institute*, **2021**, 38, 1711-1718	5.9	10
206	A review of contact force models between nanoparticles in agglomerates, aggregates, and films. *Journal of Aerosol Science*, **2021**, 153, 105719	4.3	12
205	Metal Sulfide Nanoparticles: Precursor Chemistry. *Chemistry - A European Journal*, **2021**, 27, 6390-6406	4.8	8
204	Reducing cohesion of metal powders for additive manufacturing by nanoparticle dry-coating. *Powder Technology*, **2021**, 379, 585-595	5.2	6
203	Machine learning and materials modelling interpretation of toxicological response to TiO nanoparticles library (UV and non-UV exposure). *Nanoscale*, **2021**, 13, 14666-14678	7.7	2
202	Reference data set for three-dimensional measurements of double droplet combustion of p-xylene. *Proceedings of the Combustion Institute*, **2021**, 38, 3151-3158	5.9	2
201	Unravelling CO oxidation reaction kinetics on single Pd nanoparticles in nanoconfinement using a nanofluidic reactor and DSMC simulations. *Chemical Engineering Science: X*, **2021**, 9, 100088	1.1	
200	The impact of metal doping on fumed silica structure and amino acid thermal condensation catalytic properties. *Journal of Materials Science*, **2021**, 56, 16916-16927	4.3	0
199	Redox Activity and Nano-Bio Interactions Determine the Skin Injury Potential of CoO-Based Metal Oxide Nanoparticles toward Zebrafish. *ACS Nano*, **2020**, 14, 4166-4177	16.7	6
198	Effect of hot gas atomization on spray forming of steel tubes using a close-coupled atomizer (CCA). *Journal of Materials Processing Technology*, **2020**, 282, 116677	5.3	8

197	Additive manufacturing of heavy rare earth free high-coercivity permanent magnets. *Acta Materialia*, **2020**, 188, 733-739	8.4	26
196	The gas-phase formation of tin dioxide nanoparticles in single droplet combustion and flame spray pyrolysis. *Combustion and Flame*, **2020**, 215, 389-400	5.3	17
195	Influence of the Nonlocal Effect on the Optical Properties of Nonspherical Plasmonic Semiconductor Nanoparticles. *Computational Mathematics and Modeling*, **2020**, 31, 58-74	0.5	2
194	Innenr□cktitelbild: Model-Based Nanoengineered Pharmacokinetics of Iron-Doped Copper Oxide for Nanomedical Applications (Angew. Chem. 5/2020). *Angewandte Chemie*, **2020**, 132, 2143-2143	3.6	
193	Rare-Earth-Doped Y4Al2O9 Nanoparticles for Stable Light-Converting Phosphors. *ACS Applied Nano Materials*, **2020**, 3, 699-710	5.6	14
192	Model-Based Nanoengineered Pharmacokinetics of Iron-Doped Copper Oxide for Nanomedical Applications. *Angewandte Chemie*, **2020**, 132, 1844-1852	3.6	2
191	Nanoparticle evolution in flame spray pyrolysis□Process design via experimental and computational analysis. *AICHE Journal*, **2020**, 66, e16885	3.6	21
190	Model-Based Nanoengineered Pharmacokinetics of Iron-Doped Copper Oxide for Nanomedical Applications. *Angewandte Chemie - International Edition*, **2020**, 59, 1828-1836	16.4	17
189	Enhancing the Utilization of Porous Li4Ti5O12 Layers for Thin-Film Lithium-Ion Batteries. *ACS Applied Energy Materials*, **2020**, 3, 9667-9675	6.1	3
188	Surface Functionalization of Biomedical Ti-6Al-7Nb Alloy by Liquid Metal Dealloying. *Nanomaterials*, **2020**, 10,	5.4	9
187	Flame-made Particles for Sensors, Catalysis, and Energy Storage Applications. *Energy & Fuels*, **2020**, 34, 13209-13224	4.1	19
186	Porosity and microstructure of steel tubes spray-formed by close-coupled atomizer. *Journal of Materials Processing Technology*, **2020**, 276, 116407	5.3	3
185	Novel Cooling Rate Correlations in Molten Metal Gas Atomization. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2019**, 50, 666-677	2.5	26
184	Implementation of parcel method for surface reactions in DSMC. *Computers and Fluids*, **2019**, 187, 1-11	2.8	3
183	Inverse Nanocomposites Based on Indium Tin Oxide for Display Applications: Improved Electrical Conductivity via Polymer Addition. *ACS Applied Nano Materials*, **2019**, 2, 2273-2282	5.6	8
182	Binary collision of a burning droplet and a non-burning droplet of xylene: Outcome regimes and flame dynamics. *Proceedings of the Combustion Institute*, **2019**, 37, 3345-3352	5.9	3
181	Single droplet combustion of precursor/solvent solutions for nanoparticle production: Optical diagnostics on single isolated burning droplets with micro-explosions. *Proceedings of the Combustion Institute*, **2019**, 37, 1203-1211	5.9	21
180	Unifying double flame spray pyrolysis with lanthanum doping to restrict cobalt□luminate formation in Co/Al2O3 catalysts for the dry reforming of methane. *Catalysis Science and Technology* , **2019**, 9, 4970-4980	5.5	13

179	A Contact Model for the Discrete Element Simulations of Aggregated Nanoparticle Films **2019**, 339-358		
178	A High Temperature Drop-On-Demand Droplet Generator for Metallic Melts. *Micromachines*, **2019**, 10,	3.3	12
177	Asymmetrical Double Flame Spray Pyrolysis-Designed SiO/CeZrO for the Dry Reforming of Methane. *ACS Applied Materials & Interfaces*, **2019**, 11, 25766-25777	9.5	17
176	Experimental investigations on the effects of water vapor and oxygen concentrations in the ambience on the burning constant, lifetime and residuals of single isolated xylene, isobutanol and ethanol droplets. *Experimental Thermal and Fluid Science*, **2019**, 109, 109920	3	8
175	Microstructure Adjustment of Spherical Micro-samples for High-Throughput Analysis Using a Drop-on-Demand Droplet Generator. *Materials*, **2019**, 12,	3.5	6
174	Compaction-induced restructuring of aggregated nanoparticle films using the discrete element method. *Powder Technology*, **2019**, 342, 773-779	5.2	12
173	Change of evaporation rate of single monocomponent droplet with temperature using time-resolved phase rainbow refractometry. *Proceedings of the Combustion Institute*, **2019**, 37, 3211-3218	5.9	8
172	High-Throughput Exploration of Evolutionary Structural Materials. *HTM - Journal of Heat Treatment and Materials*, **2018**, 73, 3-12	0.7	27
171	Determination of the Flat Band Potential of Nanoparticles in Porous Electrodes by Blocking the Substrate□Electrolyte Contact. *Journal of Physical Chemistry C*, **2018**, 122, 2796-2805	3.8	17
170	Nanoparticle-induced inflammation can increase tumor malignancy. *Acta Biomaterialia*, **2018**, 68, 99-112	10.8	15
169	Influence of nanoparticle doping on the colloidal stability and toxicity of copper oxide nanoparticles in synthetic and natural waters. *Water Research*, **2018**, 132, 12-22	12.5	28
168	Simultaneous measurement of monocomponent droplet temperature/refractive index, size and evaporation rate with phase rainbow refractometry. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2018**, 214, 146-157	2.1	16
167	Internal field distribution of a radially inhomogeneous droplet illuminated by an arbitrary shaped beam. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2018**, 210, 19-34	2.1	6
166	Electrochemical Behavior of Single CuO Nanoparticles: Implications for the Assessment of their Environmental Fate. *Small*, **2018**, 14, e1801765	11	23
165	A new contact model for the discrete element method simulation of (hbox {TiO}_2) nanoparticle films under mechanical load. *Granular Matter*, **2018**, 20, 1	2.6	11
164	Flame aerosol deposited Li4Ti5O12 layers for flexible, thin film all-solid-state Li-ion batteries. *Nano Energy*, **2018**, 49, 564-573	17.1	47
163	Quantitative Characterization of Mixing in Multicomponent Nanoparticle Aggregates. *Particle and Particle Systems Characterization*, **2018**, 35, 1800177	3.1	2
162	Increasing the amorphous yield of {(Fe0.6Co0.4)0.75B0.2Si0.05}96Nb4 powders by hot gas atomization. *Advanced Powder Technology*, **2018**, 29, 380-385	4.6	27

161	Fabrication and performance of Li 4 Ti 5 O 12 /C Li-ion battery electrodes using combined double flame spray pyrolysis and pressure-based lamination technique. *Journal of Power Sources*, **2018**, 374, 97-106	8.9	50
160	Verfahren zur Bestimmung des Flachbandpotenzials von Nanopartikeln in porösen Elektroden. *Chemie-Ingenieur-Technik*, **2018**, 90, 1212-1212	0.8	
159	The impact of nanoparticle-driven lysosomal alkalinization on cellular functionality. *Journal of Nanobiotechnology*, **2018**, 16, 85	9.4	21
158	A model for the drag and heat transfer of spheres in the laminar regime at high temperature differences. *International Journal of Thermal Sciences*, **2018**, 133, 98-105	4.1	21
157	Experimental investigation on microexplosion of single isolated burning droplets containing titanium tetraisopropoxide for nanoparticle production. *Proceedings of the Combustion Institute*, **2017**, 36, 1011-1018	5.9	18
156	In Silico Design of Optimal Dissolution Kinetics of Fe-Doped ZnO Nanoparticles Results in Cancer-Specific Toxicity in a Preclinical Rodent Model. *Advanced Healthcare Materials*, **2017**, 6, 1601379	10.1	20
155	An Integrated Data-Driven Strategy for Safe-by-Design Nanoparticles: The FP7 MODERN Project. *Advances in Experimental Medicine and Biology*, **2017**, 947, 257-301	3.6	5
154	The effect of initial diameter on rainbow positions and temperature distributions of burning single-component n-Alkane droplets. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2017**, 195, 164-175	2.1	26
153	Safe-by-Design CuO Nanoparticles via Fe-Doping, Cu-O Bond Length Variation, and Biological Assessment in Cells and Zebrafish Embryos. *ACS Nano*, **2017**, 11, 501-515	16.7	74
152	Multipole expansion of circularly symmetric Bessel beams of arbitrary order for scattering calculations. *Optics Communications*, **2017**, 387, 102-109	2	50
151	Nanoparticles for radiooncology: Mission, vision, challenges. *Biomaterials*, **2017**, 120, 155-184	15.6	73
150	Screening Precursor-Solvent Combinations for LiTiO Energy Storage Material Using Flame Spray Pyrolysis. *ACS Applied Materials & Interfaces*, **2017**, 9, 37760-37777	9.5	48
149	Structural and spectroscopic comparison between polycrystalline, nanocrystalline and quantum dot visible light photo-catalyst Bi2WO6. *Journal of Solid State Chemistry*, **2017**, 254, 82-89	3.3	13
148	Phase interferometric particle imaging for simultaneous measurements of evaporating micron-sized droplet and nanoscale size changes. *Applied Physics Letters*, **2017**, 111, 041905	3.4	20
147	Processing of High-Entropy AlCoCr0.75Cu0.5FeNi Alloy by Spray Forming. *Journal of Materials Engineering and Performance*, **2017**, 26, 5906-5920	1.6	4
146	Dependencies of the Adhesion Forces between TiO2 Nanoparticles on Size and Ambient Humidity. *Journal of Physical Chemistry C*, **2017**, 121, 15294-15303	3.8	15
145	Origin of the dielectric abnormities and tunable dielectric properties in doped KTN single crystals. *Applied Physics Letters*, **2017**, 111, 242902	3.4	3
144	Imbibition into Highly Porous Layers of Aggregated Particles. *Transport in Porous Media*, **2017**, 119, 119-141	3.1	5

143	Highly active Co–Al2O3-based catalysts for CO2 methanation with very low platinum promotion prepared by double flame spray pyrolysis. *Catalysis Science and Technology*, **2016**, 6, 7449-7460	5.5	43
142	General description of circularly symmetric Bessel beams of arbitrary order. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2016**, 184, 218-232	2.1	50
141	Exploring superior structural materials using multi-objective optimization and formal techniques **2016**,		9
140	Decrease of the required dopant concentration for δ-Bi2O3 crystal stabilization through thermal quenching during single-step flame spray pyrolysis. *CrystEngComm*, **2016**, 18, 2046-2056	3.3	30
139	Tailoring High-Performance Pd Catalysts for Chemoselective Hydrogenation Reactions via Optimizing the Parameters of the Double-Flame Spray Pyrolysis. *ACS Catalysis*, **2016**, 6, 2372-2381	13.1	28
138	Developmental effects of two different copper oxide nanomaterials in sea urchin (Lytechinus pictus) embryos. *Nanotoxicology*, **2016**, 10, 671-9	5.3	37
137	Solidification of single droplets under combined cooling conditions. *IOP Conference Series: Materials Science and Engineering*, **2016**, 117, 012057	0.4	10
136	Selectivity Enhancement by Using Double-Layer MOX-Based Gas Sensors Prepared by Flame Spray Pyrolysis (FSP). *Sensors*, **2016**, 16,	3.8	11
135	Effects of FeCl3 as oxidizing agent on the conduction mechanisms in polypyrrole (PPy)/p-ZnO hybrid heterojunctions grown by oxidative chemical vapor deposition. *Journal of Polymer Science, Part B: Polymer Physics*, **2016**, 54, 1537-1544	2.6	12
134	Structural and optical characterization of hybrid ZnO/polymer core-shell nanowires fabricated by oxidative chemical vapour deposition. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2016**, 13, 614-617		3
133	The role of microexplosions in flame spray synthesis for homogeneous nanopowders from low-cost metal precursors. *AICHE Journal*, **2016**, 62, 381-391	3.6	48
132	Time-resolved detection of diffusion limited temperature gradients inside single isolated burning droplets using Rainbow Refractometry. *Combustion and Flame*, **2016**, 168, 255-269	5.3	25
131	Repetitive Dosing of Fumed Silica Leads to Profibrogenic Effects through Unique Structure-Activity Relationships and Biopersistence in the Lung. *ACS Nano*, **2016**, 10, 8054-66	16.7	40
130	Parametrization of nanoparticles: development of full-particle nanodescriptors. *Nanoscale*, **2016**, 8, 16243-16250	7.7	20
129	Toxicity of metal oxide nanoparticles in Escherichia coli correlates with conduction band and hydration energies. *Environmental Science & Technology*, **2015**, 49, 1105-12	10.3	111
128	Preferential oxidation of carbon monoxide over Pt-FeOx/CeO2 synthesized by two-nozzle flame spray pyrolysis. *Journal of Catalysis*, **2015**, 329, 248-261	7.3	30
127	Reduction of Acute Inflammatory Effects of Fumed Silica Nanoparticles in the Lung by Adjusting Silanol Display through Calcination and Metal Doping. *ACS Nano*, **2015**, 9, 9357-72	16.7	86
126	Toxicity of 12 metal-based nanoparticles to algae, bacteria and protozoa. *Environmental Science: Nano*, **2015**, 2, 630-644	7.1	144

125	In situ high temperature X-ray diffraction, transmission electron microscopy and theoretical modeling for the formation of WO3 crystallites. *CrystEngComm*, **2015**, 17, 6985-6998	3.3	42
124	Influence of single- and double-flame spray pyrolysis on the structure of MnOx/Al2O3 and FeOx/Al2O3 catalysts and their behaviour in CO removal under lean exhaust gas conditions. *Catalysis Science and Technology*, **2015**, 5, 455-464	5.5	26
123	Influence of sintering necks on the spectral behaviour of ITO clusters using the Discrete Dipole Approximation. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2015**, 159, 11-18	2.1	11
122	Nanoscale mixing during double-flame spray synthesis of heterostructured nanoparticles. *Journal of Nanoparticle Research*, **2015**, 17, 1	2.3	21
121	Gas-solid catalytic reactions with an extended DSMC model. *AICHE Journal*, **2015**, 61, 2092-2103	3.6	9
120	Contact Forces between TiO2 Nanoparticles Governed by an Interplay of Adsorbed Water Layers and Roughness. *Langmuir*, **2015**, 31, 11288-95	4	34
119	Designing Photoelectrodes for Photocatalytic Fuel Cells and Elucidating the Effects of Organic Substrates. *ChemSusChem*, **2015**, 8, 4005-15	8.3	26
118	Toxicity of 11 Metal Oxide Nanoparticles to Three Mammalian Cell Types In Vitro. *Current Topics in Medicinal Chemistry*, **2015**, 15, 1914-29	3	151
117	Nanoscale building blocks in a novel lithium arsenotungsten bronze: Synthesis and characterization. *Journal of Solid State Chemistry*, **2015**, 226, 81-87	3.3	1
116	Structure–function relationships of conventionally and flame made Pd-doped sensors studied by X-ray absorption spectroscopy and DC-resistance. *Sensors and Actuators B: Chemical*, **2015**, 219, 315-323	8.5	19
115	Atomization and characterization of a glass forming alloy {(Fe0.6Co0.4)0.75B0.2Si0.05}96Nb4. *Journal of Non-Crystalline Solids*, **2014**, 394-395, 36-42	3.9	14
114	Contact behavior of size fractionated TiO2 nanoparticle agglomerates and aggregates. *Powder Technology*, **2014**, 256, 345-351	5.2	19
113	PdO doping tunes band-gap energy levels as well as oxidative stress responses to a Co3O4 p-type semiconductor in cells and the lung. *Journal of the American Chemical Society*, **2014**, 136, 6406-20	16.4	114
112	A soil mediated phyto-toxicological study of iron doped zinc oxide nanoparticles (Fe@ZnO) in green peas (Pisum sativum L.). *Chemical Engineering Journal*, **2014**, 258, 394-401	14.7	45
111	INFLUENCE OF ATOMIZATION AND SPRAY PARAMETERS ON THE FLAME SPRAY PROCESS FOR NANOPARTICLE PRODUCTION. *Atomization and Sprays*, **2014**, 24, 495-524	1.2	9
110	A miniaturized solid contact test with Arthrobacter globiformis for the assessment of the environmental impact of silver nanoparticles. *Environmental Toxicology and Chemistry*, **2014**, 33, 1142-7	3.8	14
109	New Process Technologies for the Deposition of Semiconducting Metal Oxide Nanoparticles for Sensing. *Procedia Engineering*, **2014**, 87, 24-27		14
108	Spray forming of high density sheets. *Materialwissenschaft Und Werkstofftechnik*, **2014**, 45, 642-651	0.9	6

107	Size- and Composite-Controlled Synthesis of Multi Oxide Nanoparticles Using Double-Flame Spray Pyrolysis. *Chemie-Ingenieur-Technik*, **2014**, 86, 1542-1543	0.8	
106	High yield spray forming of small diameter tubes using pressure-gas-atomization. *Materialwissenschaft Und Werkstofftechnik*, **2014**, 45, 699-707	0.9	5
105	Simulation of gas diffusion in highly porous nanostructures by direct simulation Monte Carlo. *Chemical Engineering Science*, **2014**, 105, 69-76	4.4	27
104	Monocrystalline-silicon-based thermogenerator with broad temperature working range embedded using metal-spray-deposition. *Sensors and Actuators A: Physical*, **2014**, 216, 417-425	3.9	
103	Gold nanoparticle aerosols for rodent inhalation and translocation studies. *Journal of Nanoparticle Research*, **2013**, 15, 1	2.3	10
102	Fe-doped ZnO nanoparticles: the oxidation number and local charge on iron, studied by 57Fe MÖßbauer spectroscopy and DFT calculations. *Chemistry - A European Journal*, **2013**, 19, 3287-91	4.8	24
101	Conduction mechanism in undoped and antimony doped SnO2 based FSP gas sensors. *Sensors and Actuators B: Chemical*, **2013**, 188, 631-636	8.5	27
100	Numerical simulation of Electron Energy Loss Spectroscopy using a Generalized Multipole Technique. *Ultramicroscopy*, **2013**, 133, 101-8	3.1	9
99	Maximizing Activity and Stability by Turning Gold Catalysis Upside Down: Oxide Particles on Nanoporous Gold. *ChemCatChem*, **2013**, 5, 2037-2043	5.2	32
98	Double flame spray pyrolysis as a novel technique to synthesize alumina-supported cobalt Fischer□Tropsch catalysts. *Catalysis Today*, **2013**, 214, 90-99	5.3	43
97	Disruptive burning of precursor/solvent droplets in flame-spray synthesis of nanoparticles. *AICHE Journal*, **2013**, 59, 4553-4566	3.6	41
96	Ceramic Mask-Assisted Flame Spray Pyrolysis for Direct and Accurate Patterning of Metal Oxide Nanoparticles. *Advanced Engineering Materials*, **2013**, 15, 773-779	3.5	2
95	Flame spray pyrolysis for sensing at the nanoscale. *Nanotechnology*, **2013**, 24, 442001	3.4	56
94	Custom-designed nanomaterial libraries for testing metal oxide toxicity. *Accounts of Chemical Research*, **2013**, 46, 632-41	24.3	49
93	Multilayer model for determining the thickness and refractive index of sol□gel coatings via laser ellipsometry. *Thin Solid Films*, **2013**, 531, 93-98	2.2	4
92	Palladium-doped silica□lumina catalysts obtained from double-flame FSP for chemoselective hydrogenation of the model aromatic ketone acetophenone. *Journal of Catalysis*, **2013**, 302, 10-19	7.3	44
91	Transfer of highly porous nanoparticle layers to various substrates through mechanical compression. *Nanoscale*, **2013**, 5, 3764-72	7.7	27
90	Zebrafish high-throughput screening to study the impact of dissolvable metal oxide nanoparticles on the hatching enzyme, ZHE1. *Small*, **2013**, 9, 1776-85	11	97

89	Metal Oxides: Zebrafish High-Throughput Screening to Study the Impact of Dissolvable Metal Oxide Nanoparticles on the Hatching Enzyme, ZHE1 (Small 9/10/2013). *Small*, **2013**, 9, 1775-1775	11	1
88	Implementation of a multidisciplinary approach to solve complex nano EHS problems by the UC Center for the Environmental Implications of Nanotechnology. *Small*, **2013**, 9, 1428-43	11	29
87	Two-Nozzle Flame Spray Pyrolysis (FSP) Synthesis of CoMo/Al2O3 Hydrotreating Catalysts. *Catalysis Letters*, **2013**, 143, 386-394	2.8	21
86	Investigation of a Nanoporous Gold / TiO2 Catalyst by Electron Microscopy and Tomography. *Materials Research Society Symposia Proceedings*, **2013**, 1504, 1		
85	Silicon-based thermogenerator for wide temperature range applications embedded using metal-spray-deposition **2013**,		1
84	Quenched, nanocrystalline In4Sn3O12 high temperature phase for gas sensing applications. *Sensors and Actuators B: Chemical*, **2012**, 161, 740-747	8.5	45
83	Synthesis of polymer/inorganic nanocomposite films using highly porous inorganic scaffolds. *Nanoscale*, **2012**, 4, 2326-32	7.7	13
82	Adhesion mechanisms of the contact interface of TiO2 nanoparticles in films and aggregates. *Langmuir*, **2012**, 28, 11457-64	4	60
81	Use of metal oxide nanoparticle band gap to develop a predictive paradigm for oxidative stress and acute pulmonary inflammation. *ACS Nano*, **2012**, 6, 4349-68	16.7	631
80	Interactions of amino acids and polypeptides with metal oxide nanoparticles probed by fluorescent indicator adsorption and displacement. *ACS Nano*, **2012**, 6, 5668-79	16.7	45
79	Bulk and surface excitons in alloyed and phase-separated ZnO-MgO particulate systems. *ACS Applied Materials & Interfaces*, **2012**, 4, 2490-7	9.5	10
78	The fate of ZnO nanoparticles administered to human bronchial epithelial cells. *ACS Nano*, **2012**, 6, 4921-30	16.7	134
77	Protein adsorption on colloidal alumina particles functionalized with amino, carboxyl, sulfonate and phosphate groups. *Acta Biomaterialia*, **2012**, 8, 1221-9	10.8	92
76	Efficient internalization and intracellular translocation of inhaled gold nanoparticles in rat alveolar macrophages. *Nanomedicine*, **2012**, 7, 855-65	5.6	27
75	No time to lose--high throughput screening to assess nanomaterial safety. *Nanoscale*, **2011**, 3, 1345-60	7.7	139
74	Flame preparation of visible-light-responsive BiVO4 oxygen evolution photocatalysts with subsequent activation via aqueous route. *ACS Applied Materials & Interfaces*, **2011**, 3, 1997-2004	9.5	117
73	Nanomaterials in the environment: from materials to high-throughput screening to organisms. *ACS Nano*, **2011**, 5, 13-20	16.7	133
72	Stability, bioavailability, and bacterial toxicity of ZnO and iron-doped ZnO nanoparticles in aquatic media. *Environmental Science & Technology*, **2011**, 45, 755-61	10.3	183

71	Role of Fe doping in tuning the band gap of TiO2 for the photo-oxidation-induced cytotoxicity paradigm. *Journal of the American Chemical Society*, **2011**, 133, 11270-8	16.4	290
70	Metal oxide nanomaterials in seawater: linking physicochemical characteristics with biological response in sea urchin development. *Journal of Hazardous Materials*, **2011**, 192, 1565-71	12.8	102
69	High content screening in zebrafish speeds up hazard ranking of transition metal oxide nanoparticles. *ACS Nano*, **2011**, 5, 7284-95	16.7	154
68	Decreased dissolution of ZnO by iron doping yields nanoparticles with reduced toxicity in the rodent lung and zebrafish embryos. *ACS Nano*, **2011**, 5, 1223-35	16.7	298
67	Evidence for Fe(2+) in wurtzite coordination: iron doping stabilizes ZnO nanoparticles. *Small*, **2011**, 7, 2879-86	11	37
66	Doped Nanoparticles: Evidence for Fe2+ in Wurtzite Coordination: Iron Doping Stabilizes ZnO Nanoparticles (Small 20/2011). *Small*, **2011**, 7, 2878-2878	11	1
65	Author response to Letter to the Editor by Professor Bing Guo on the paper Bacterial aerosol neutralization by aerodynamic shocks using a novel impactor system: Design and computation, Chem. Eng. Sci., 64, 1953–1967, 2009. *Chemical Engineering Science*, **2011**, 66, 229-230	4.4	
64	Dopant-free, polymorphic design of TiO2 nanocrystals by flame aerosol synthesis. *Chemical Engineering Science*, **2011**, 66, 2409-2416	4.4	31
63	Role of Palladium in Iron Based Fischer–Tropsch Catalysts Prepared by Flame Spray Pyrolysis *Journal of Physical Chemistry C*, **2011**, 115, 1302-1310	3.8	29
62	Enhancing performance of FSP SnO2-based gas sensors through Sb-doping and Pd-functionalization. *Sensors and Actuators B: Chemical*, **2011**, 158, 388-392	8.5	40
61	Photocatalytic H2 Evolution over TiO2 Nanoparticles. The Synergistic Effect of Anatase and Rutile. *Journal of Physical Chemistry C*, **2010**, 114, 2821-2829	3.8	307
60	Use of a rapid cytotoxicity screening approach to engineer a safer zinc oxide nanoparticle through iron doping. *ACS Nano*, **2010**, 4, 15-29	16.7	427
59	Dispersion of TiO nanoparticle agglomerates by Pseudomonas aeruginosa. *Applied and Environmental Microbiology*, **2010**, 76, 7292-8	4.8	86
58	Flame spray pyrolysis: An enabling technology for nanoparticles design and fabrication. *Nanoscale*, **2010**, 2, 1324-47	7.7	437
57	Growth of Ultrafine Single Crystalline WO3 Nanoparticles Using Flame Spray Pyrolysis. *Crystal Growth and Design*, **2010**, 10, 632-639	3.5	65
56	Bacterial aerosol neutralization by aerodynamic shocks using an impactor system: Experimental results for E. coli and analysis. *Chemical Engineering Science*, **2010**, 65, 1490-1502	4.4	3
55	Bacterial aerosol neutralization by aerodynamic shocks using an impactor system: Experimental results for B. atropheus spores. *Chemical Engineering Science*, **2010**, 65, 4803-4815	4.4	4
54	Structure–conductivity relations of simulated highly porous nanoparticle aggregate films. *Journal of Nanoparticle Research*, **2010**, 12, 853-863	2.3	25

53	Understanding biophysicochemical interactions at the nano-bio interface. *Nature Materials*, **2009**, 8, 543-57	27	5239
52	Bacterial aerosol neutralization by aerodynamic shocks using a novel impactor system: Design and computation. *Chemical Engineering Science*, **2009**, 64, 1953-1967	4.4	6
51	Ru-Doped Cobalt-Zirconia Nanocomposites by Flame Synthesis: Physicochemical and Catalytic Properties. *Chemistry of Materials*, **2008**, 20, 4069-4079	9.6	32
50	Nanoparticle aggregate volume determination by electrical mobility analysis: Test of idealized aggregate theory using aerosol particle mass analyzer measurements. *Journal of Aerosol Science*, **2008**, 39, 403-417	4.3	24
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