

# Lutz Mdler

## List of Publications by Citations

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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	Toxic potential of materials at the nanolevel. <i>Science</i> , <b>2006</b> , 311, 622-7	33.3	6989
213	Understanding biophysicochemical interactions at the nano-bio interface. <i>Nature Materials</i> , <b>2009</b> , 8, 543-57	5.7	5239
212	Comparison of the mechanism of toxicity of zinc oxide and cerium oxide nanoparticles based on dissolution and oxidative stress properties. <i>ACS Nano</i> , <b>2008</b> , 2, 2121-34	16.7	1868
211	Use of metal oxide nanoparticle band gap to develop a predictive paradigm for oxidative stress and acute pulmonary inflammation. <i>ACS Nano</i> , <b>2012</b> , 6, 4349-68	16.7	631
210	Controlled synthesis of nanostructured particles by flame spray pyrolysis. <i>Journal of Aerosol Science</i> , <b>2002</b> , 33, 369-389	4.3	562
209	Flame spray pyrolysis: An enabling technology for nanoparticles design and fabrication. <i>Nanoscale</i> , <b>2010</b> , 2, 1324-47	7.7	437
208	Use of a rapid cytotoxicity screening approach to engineer a safer zinc oxide nanoparticle through iron doping. <i>ACS Nano</i> , <b>2010</b> , 4, 15-29	16.7	427
207	Flame Synthesis of Nanoparticles. <i>Chemical Engineering and Technology</i> , <b>2001</b> , 24, 583-596	2	329
206	Nanoparticle synthesis at high production rates by flame spray pyrolysis. <i>Chemical Engineering Science</i> , <b>2003</b> , 58, 1969-1976	4.4	311
205	Photocatalytic H <sub>2</sub> Evolution over TiO <sub>2</sub> Nanoparticles. The Synergistic Effect of Anatase and Rutile. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 2821-2829	3.8	307
204	Decreased dissolution of ZnO by iron doping yields nanoparticles with reduced toxicity in the rodent lung and zebrafish embryos. <i>ACS Nano</i> , <b>2011</b> , 5, 1223-35	16.7	298
203	Flame-made ceria nanoparticles. <i>Journal of Materials Research</i> , <b>2002</b> , 17, 1356-1362	2.5	296
202	Role of Fe doping in tuning the band gap of TiO <sub>2</sub> for the photo-oxidation-induced cytotoxicity paradigm. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 11270-8	16.4	290
201	Direct formation of highly porous gas-sensing films by in situ thermophoretic deposition of flame-made Pt/SnO <sub>2</sub> nanoparticles. <i>Sensors and Actuators B: Chemical</i> , <b>2006</b> , 114, 283-295	8.5	251
200	Flame spray synthesis of tin dioxide nanoparticles for gas sensing. <i>Sensors and Actuators B: Chemical</i> , <b>2004</b> , 98, 148-153	8.5	193
199	Stability, bioavailability, and bacterial toxicity of ZnO and iron-doped ZnO nanoparticles in aquatic media. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 755-61	10.3	183
198	Homogeneous ZnO Nanoparticles by Flame Spray Pyrolysis. <i>Journal of Nanoparticle Research</i> , <b>2002</b> , 4, 337-343	2.3	182

197	Flame sprayed visible light-active Fe-TiO <sub>2</sub> for photomineralisation of oxalic acid. <i>Catalysis Today</i> , <b>2007</b> , 120, 203-213	5.3	166
196	Direct (one-step) synthesis of . <i>Chemical Engineering Science</i> , <b>2005</b> , 60, 5852-5861	4.4	159
195	High content screening in zebrafish speeds up hazard ranking of transition metal oxide nanoparticles. <i>ACS Nano</i> , <b>2011</b> , 5, 7284-95	16.7	154
194	Toxicity of 11 Metal Oxide Nanoparticles to Three Mammalian Cell Types In Vitro. <i>Current Topics in Medicinal Chemistry</i> , <b>2015</b> , 15, 1914-29	3	151
193	Toxicity of 12 metal-based nanoparticles to algae, bacteria and protozoa. <i>Environmental Science: Nano</i> , <b>2015</b> , 2, 630-644	7.1	144
192	No time to lose--high throughput screening to assess nanomaterial safety. <i>Nanoscale</i> , <b>2011</b> , 3, 1345-60	7.7	139
191	Rapid synthesis of stable ZnO quantum dots. <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 6537-6540	2.5	138
190	Sensing low concentrations of CO using flame-spray-made Pt/SnO <sub>2</sub> nanoparticles. <i>Journal of Nanoparticle Research</i> , <b>2006</b> , 8, 783-796	2.3	135
189	The fate of ZnO nanoparticles administered to human bronchial epithelial cells. <i>ACS Nano</i> , <b>2012</b> , 6, 4921-307	13.7	134
188	Nanomaterials in the environment: from materials to high-throughput screening to organisms. <i>ACS Nano</i> , <b>2011</b> , 5, 13-20	16.7	133
187	Flame-made platinum/alumina: structural properties and catalytic behaviour in enantioselective hydrogenation. <i>Journal of Catalysis</i> , <b>2003</b> , 213, 296-304	7.3	128
186	Nanorods of ZnO Made by Flame Spray Pyrolysis. <i>Chemistry of Materials</i> , <b>2006</b> , 18, 572-578	9.6	126
185	Bismuth Oxide Nanoparticles by Flame Spray Pyrolysis. <i>Journal of the American Ceramic Society</i> , <b>2004</b> , 85, 1713-1718	3.8	122
184	Flame preparation of visible-light-responsive BiVO <sub>4</sub> oxygen evolution photocatalysts with subsequent activation via aqueous route. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 1997-2004	9.5	117
183	PdO doping tunes band-gap energy levels as well as oxidative stress responses to a CoO <sub>2</sub> -type semiconductor in cells and the lung. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 6406-20	16.4	114
182	Toxicity of metal oxide nanoparticles in Escherichia coli correlates with conduction band and hydration energies. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 1105-12	10.3	111
181	One-step aerosol synthesis of nanoparticle agglomerate films: simulation of film porosity and thickness. <i>Nanotechnology</i> , <b>2006</b> , 17, 4783-4795	3.4	110
180	Flame synthesis of nanocrystalline ceria-zirconia: effect of carrier liquid. <i>Chemical Communications</i> , <b>2003</b> , 588-9	5.8	109

179	Electrospray evaporation and deposition. <i>Journal of Aerosol Science</i> , <b>2003</b> , 34, 815-836	4.3	108
178	Metal oxide nanomaterials in seawater: linking physicochemical characteristics with biological response in sea urchin development. <i>Journal of Hazardous Materials</i> , <b>2011</b> , 192, 1565-71	12.8	102
177	Zebrafish high-throughput screening to study the impact of dissolvable metal oxide nanoparticles on the hatching enzyme, ZHE1. <i>Small</i> , <b>2013</b> , 9, 1776-85	11	97
176	Protein adsorption on colloidal alumina particles functionalized with amino, carboxyl, sulfonate and phosphate groups. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 1221-9	10.8	92
175	Inter-relationship between Pt oxidation states on TiO <sub>2</sub> and the photocatalytic mineralisation of organic matters. <i>Journal of Catalysis</i> , <b>2007</b> , 251, 271-280	7.3	90
174	Reduction of Acute Inflammatory Effects of Fumed Silica Nanoparticles in the Lung by Adjusting Silanol Display through Calcination and Metal Doping. <i>ACS Nano</i> , <b>2015</b> , 9, 9357-72	16.7	86
173	Dispersion of TiO <sub>2</sub> nanoparticle agglomerates by <i>Pseudomonas aeruginosa</i> . <i>Applied and Environmental Microbiology</i> , <b>2010</b> , 76, 7292-8	4.8	86
172	Flame-made nanocrystalline ceria/zirconia: structural properties and dynamic oxygen exchange capacity. <i>Journal of Catalysis</i> , <b>2003</b> , 220, 35-43	7.3	83
171	Criteria for Flame-Spray Synthesis of Hollow, Shell-Like, or Inhomogeneous Oxides. <i>Journal of the American Ceramic Society</i> , <b>2005</b> , 88, 1388-1393	3.8	83
170	Simultaneous deposition of Au nanoparticles during flame synthesis of TiO <sub>2</sub> and SiO <sub>2</sub> . <i>Journal of Materials Research</i> , <b>2003</b> , 18, 115-120	2.5	75
169	Safe-by-Design CuO Nanoparticles via Fe-Doping, Cu-O Bond Length Variation, and Biological Assessment in Cells and Zebrafish Embryos. <i>ACS Nano</i> , <b>2017</b> , 11, 501-515	16.7	74
168	Two-Nozzle Flame Synthesis of Pt/Ba/Al <sub>2</sub> O <sub>3</sub> for NO <sub>x</sub> Storage. <i>Chemistry of Materials</i> , <b>2006</b> , 18, 2532-2537	7.6	74
167	Transparent Nanocomposites of Radiopaque, Flame-Made Ta <sub>2</sub> O <sub>5</sub> /SiO <sub>2</sub> Particles in an Acrylic Matrix. <i>Advanced Functional Materials</i> , <b>2005</b> , 15, 830-837	15.6	74
166	Nanoparticles for radiooncology: Mission, vision, challenges. <i>Biomaterials</i> , <b>2017</b> , 120, 155-184	15.6	73
165	Growth of Ultrafine Single Crystalline WO <sub>3</sub> Nanoparticles Using Flame Spray Pyrolysis. <i>Crystal Growth and Design</i> , <b>2010</b> , 10, 632-639	3.5	65
164	Independent Control of Metal Cluster and Ceramic Particle Characteristics During One-step Synthesis of Pt/TiO <sub>2</sub> . <i>Journal of Materials Research</i> , <b>2005</b> , 20, 2568-2577	2.5	63
163	Direct measurement of entrainment during nanoparticle synthesis in spray flames. <i>Combustion and Flame</i> , <b>2006</b> , 144, 809-820	5.3	62
162	Adhesion mechanisms of the contact interface of TiO <sub>2</sub> nanoparticles in films and aggregates. <i>Langmuir</i> , <b>2012</b> , 28, 11457-64	4	60

161	Liquid-fed Aerosol Reactors for One-step Synthesis of Nano-structured Particles. <i>KONA Powder and Particle Journal</i> , <b>2004</b> , 22, 107-120	3.4	59
160	Flame spray pyrolysis for sensing at the nanoscale. <i>Nanotechnology</i> , <b>2013</b> , 24, 442001	3.4	56
159	Sensing of CH <sub>4</sub> , CO and ethanol with in situ nanoparticle aerosol-fabricated multilayer sensors. <i>Sensors and Actuators B: Chemical</i> , <b>2007</b> , 127, 63-68	8.5	56
158	Transport of Nanoparticles in Gases: Overview and Recent Advances. <i>Aerosol and Air Quality Research</i> , <b>2007</b> , 7, 304-342	4.6	53
157	Fundamental studies on SnO <sub>2</sub> by means of simultaneous work function change and conduction measurements. <i>Thin Solid Films</i> , <b>2005</b> , 490, 43-47	2.2	52
156	Multipole expansion of circularly symmetric Bessel beams of arbitrary order for scattering calculations. <i>Optics Communications</i> , <b>2017</b> , 387, 102-109	2	50
155	General description of circularly symmetric Bessel beams of arbitrary order. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2016</b> , 184, 218-232	2.1	50
154	Fabrication and performance of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> /C Li-ion battery electrodes using combined double flame spray pyrolysis and pressure-based lamination technique. <i>Journal of Power Sources</i> , <b>2018</b> , 374, 97-106	8.9	50
153	Custom-designed nanomaterial libraries for testing metal oxide toxicity. <i>Accounts of Chemical Research</i> , <b>2013</b> , 46, 632-41	24.3	49
152	Screening Precursor-Solvent Combinations for LiTiO Energy Storage Material Using Flame Spray Pyrolysis. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 37760-37777	9.5	48
151	The role of microexplosions in flame spray synthesis for homogeneous nanopowders from low-cost metal precursors. <i>AIChE Journal</i> , <b>2016</b> , 62, 381-391	3.6	48
150	Flame aerosol deposited Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> layers for flexible, thin film all-solid-state Li-ion batteries. <i>Nano Energy</i> , <b>2018</b> , 49, 564-573	17.1	47
149	A soil mediated phyto-toxicological study of iron doped zinc oxide nanoparticles (Fe@ZnO) in green peas ( <i>Pisum sativum</i> L.). <i>Chemical Engineering Journal</i> , <b>2014</b> , 258, 394-401	14.7	45
148	Quenched, nanocrystalline In <sub>4</sub> Sn <sub>3</sub> O <sub>12</sub> high temperature phase for gas sensing applications. <i>Sensors and Actuators B: Chemical</i> , <b>2012</b> , 161, 740-747	8.5	45
147	Interactions of amino acids and polypeptides with metal oxide nanoparticles probed by fluorescent indicator adsorption and displacement. <i>ACS Nano</i> , <b>2012</b> , 6, 5668-79	16.7	45
146	Palladium-doped silica/alumina catalysts obtained from double-flame FSP for chemoselective hydrogenation of the model aromatic ketone acetophenone. <i>Journal of Catalysis</i> , <b>2013</b> , 302, 10-19	7.3	44
145	Highly active Co/Al <sub>2</sub> O <sub>3</sub> -based catalysts for CO <sub>2</sub> methanation with very low platinum promotion prepared by double flame spray pyrolysis. <i>Catalysis Science and Technology</i> , <b>2016</b> , 6, 7449-7460	5.5	43
144	Double flame spray pyrolysis as a novel technique to synthesize alumina-supported cobalt Fischer-Tropsch catalysts. <i>Catalysis Today</i> , <b>2013</b> , 214, 90-99	5.3	43

143	In situ high temperature X-ray diffraction, transmission electron microscopy and theoretical modeling for the formation of WO <sub>3</sub> crystallites. <i>CrystEngComm</i> , <b>2015</b> , 17, 6985-6998	3.3	42
142	Photocatalytic mineralisation of organic compounds: a comparison of flame-made TiO <sub>2</sub> catalysts. <i>Topics in Catalysis</i> , <b>2007</b> , 44, 489-497	2.3	42
141	Disruptive burning of precursor/solvent droplets in flame-spray synthesis of nanoparticles. <i>AIChE Journal</i> , <b>2013</b> , 59, 4553-4566	3.6	41
140	Enhancing performance of FSP SnO <sub>2</sub> -based gas sensors through Sb-doping and Pd-functionalization. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 158, 388-392	8.5	40
139	Mechanical properties of nanoparticle chain aggregates by combined AFM and SEM: isolated aggregates and networks. <i>Nano Letters</i> , <b>2006</b> , 6, 2646-55	11.5	40
138	Synthesis of zinc oxide/silica composite nanoparticles by flame spray pyrolysis. <i>Journal of Materials Science</i> , <b>2002</b> , 37, 4627-4632	4.3	40
137	Repetitive Dosing of Fumed Silica Leads to Profibrogenic Effects through Unique Structure-Activity Relationships and Biopersistence in the Lung. <i>ACS Nano</i> , <b>2016</b> , 10, 8054-66	16.7	40
136	Developmental effects of two different copper oxide nanomaterials in sea urchin ( <i>Lytechinus pictus</i> ) embryos. <i>Nanotoxicology</i> , <b>2016</b> , 10, 671-9	5.3	37
135	Evidence for Fe(2+) in wurtzite coordination: iron doping stabilizes ZnO nanoparticles. <i>Small</i> , <b>2011</b> , 7, 2879-86	11	37
134	Formation of multilayer films for gas sensing by in situ thermophoretic deposition of nanoparticles from aerosol phase. <i>Journal of Materials Research</i> , <b>2007</b> , 22, 850-857	2.5	37
133	Contact Forces between TiO <sub>2</sub> Nanoparticles Governed by an Interplay of Adsorbed Water Layers and Roughness. <i>Langmuir</i> , <b>2015</b> , 31, 11288-95	4	34
132	Maximizing Activity and Stability by Turning Gold Catalysis Upside Down: Oxide Particles on Nanoporous Gold. <i>ChemCatChem</i> , <b>2013</b> , 5, 2037-2043	5.2	32
131	Ru-Doped Cobalt/Zirconia Nanocomposites by Flame Synthesis: Physicochemical and Catalytic Properties. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 4069-4079	9.6	32
130	Dopant-free, polymorphic design of TiO <sub>2</sub> nanocrystals by flame aerosol synthesis. <i>Chemical Engineering Science</i> , <b>2011</b> , 66, 2409-2416	4.4	31
129	Control of particulate processes: Recent results and future challenges. <i>Powder Technology</i> , <b>2007</b> , 175, 1-7	5.2	31
128	Size Tunable Synthesis of Highly Crystalline BaTiO <sub>3</sub> Nanoparticles using Salt-Assisted Spray Pyrolysis. <i>Journal of Nanoparticle Research</i> , <b>2003</b> , 5, 191-198	2.3	31
127	Preferential oxidation of carbon monoxide over Pt/FeOx/CeO <sub>2</sub> synthesized by two-nozzle flame spray pyrolysis. <i>Journal of Catalysis</i> , <b>2015</b> , 329, 248-261	7.3	30
126	Decrease of the required dopant concentration for Bi <sub>2</sub> O <sub>3</sub> crystal stabilization through thermal quenching during single-step flame spray pyrolysis. <i>CrystEngComm</i> , <b>2016</b> , 18, 2046-2056	3.3	30

125	Implementation of a multidisciplinary approach to solve complex nano EHS problems by the UC Center for the Environmental Implications of Nanotechnology. <i>Small</i> , <b>2013</b> , 9, 1428-43	11	29
124	Role of Palladium in Iron Based Fischer-Tropsch Catalysts Prepared by Flame Spray Pyrolysis <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 1302-1310	3.8	29
123	Nanoparticle aerosol science and technology: an overview. <i>Particuology: Science and Technology of Particles</i> , <b>2005</b> , 3, 243-254		29
122	Influence of nanoparticle doping on the colloidal stability and toxicity of copper oxide nanoparticles in synthetic and natural waters. <i>Water Research</i> , <b>2018</b> , 132, 12-22	12.5	28
121	Tailoring High-Performance Pd Catalysts for Chemoselective Hydrogenation Reactions via Optimizing the Parameters of the Double-Flame Spray Pyrolysis. <i>ACS Catalysis</i> , <b>2016</b> , 6, 2372-2381	13.1	28
120	High-Throughput Exploration of Evolutionary Structural Materials. <i>HTM - Journal of Heat Treatment and Materials</i> , <b>2018</b> , 73, 3-12	0.7	27
119	Conduction mechanism in undoped and antimony doped SnO <sub>2</sub> based FSP gas sensors. <i>Sensors and Actuators B: Chemical</i> , <b>2013</b> , 188, 631-636	8.5	27
118	Simulation of gas diffusion in highly porous nanostructures by direct simulation Monte Carlo. <i>Chemical Engineering Science</i> , <b>2014</b> , 105, 69-76	4.4	27
117	Transfer of highly porous nanoparticle layers to various substrates through mechanical compression. <i>Nanoscale</i> , <b>2013</b> , 5, 3764-72	7.7	27
116	Efficient internalization and intracellular translocation of inhaled gold nanoparticles in rat alveolar macrophages. <i>Nanomedicine</i> , <b>2012</b> , 7, 855-65	5.6	27
115	Increasing the amorphous yield of {(Fe <sub>0.6</sub> Co <sub>0.4</sub> ) <sub>0.75</sub> B <sub>0.2</sub> Si <sub>0.05</sub> } <sub>96</sub> Nb <sub>4</sub> powders by hot gas atomization. <i>Advanced Powder Technology</i> , <b>2018</b> , 29, 380-385	4.6	27
114	The effect of initial diameter on rainbow positions and temperature distributions of burning single-component n-Alkane droplets. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2017</b> , 195, 164-175	2.1	26
113	Novel Cooling Rate Correlations in Molten Metal Gas Atomization. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2019</b> , 50, 666-677	2.5	26
112	Influence of single- and double-flame spray pyrolysis on the structure of MnO <sub>x</sub> /Al <sub>2</sub> O <sub>3</sub> and FeO <sub>x</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts and their behaviour in CO removal under lean exhaust gas conditions. <i>Catalysis Science and Technology</i> , <b>2015</b> , 5, 455-464	5.5	26
111	Additive manufacturing of heavy rare earth free high-coercivity permanent magnets. <i>Acta Materialia</i> , <b>2020</b> , 188, 733-739	8.4	26
110	Designing Photoelectrodes for Photocatalytic Fuel Cells and Elucidating the Effects of Organic Substrates. <i>ChemSusChem</i> , <b>2015</b> , 8, 4005-15	8.3	26
109	Structure-conductivity relations of simulated highly porous nanoparticle aggregate films. <i>Journal of Nanoparticle Research</i> , <b>2010</b> , 12, 853-863	2.3	25
108	Visibly transparent & radiopaque inorganic organic composites from flame-made mixed-oxide fillers. <i>Journal of Nanoparticle Research</i> , <b>2006</b> , 8, 323-333	2.3	25

107	Time-resolved detection of diffusion limited temperature gradients inside single isolated burning droplets using Rainbow Refractometry. <i>Combustion and Flame</i> , <b>2016</b> , 168, 255-269	5.3	25
106	Fe-doped ZnO nanoparticles: the oxidation number and local charge on iron, studied by 57Fe Mössbauer spectroscopy and DFT calculations. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 3287-91	4.8	24
105	Nanoparticle aggregate volume determination by electrical mobility analysis: Test of idealized aggregate theory using aerosol particle mass analyzer measurements. <i>Journal of Aerosol Science</i> , <b>2008</b> , 39, 403-417	4.3	24
104	Electrochemical Behavior of Single CuO Nanoparticles: Implications for the Assessment of their Environmental Fate. <i>Small</i> , <b>2018</b> , 14, e1801765	11	23
103	Nanoscale mixing during double-flame spray synthesis of heterostructured nanoparticles. <i>Journal of Nanoparticle Research</i> , <b>2015</b> , 17, 1	2.3	21
102	Single droplet combustion of precursor/solvent solutions for nanoparticle production: Optical diagnostics on single isolated burning droplets with micro-explosions. <i>Proceedings of the Combustion Institute</i> , <b>2019</b> , 37, 1203-1211	5.9	21
101	Two-Nozzle Flame Spray Pyrolysis (FSP) Synthesis of CoMo/Al <sub>2</sub> O <sub>3</sub> Hydrotreating Catalysts. <i>Catalysis Letters</i> , <b>2013</b> , 143, 386-394	2.8	21
100	Correlating filler transparency with inorganic/polymer composite transparency. <i>Composites Part A: Applied Science and Manufacturing</i> , <b>2007</b> , 38, 2451-2459	8.4	21
99	Nanoparticle evolution in flame spray pyrolysis Process design via experimental and computational analysis. <i>AIChE Journal</i> , <b>2020</b> , 66, e16885	3.6	21
98	The impact of nanoparticle-driven lysosomal alkalization on cellular functionality. <i>Journal of Nanobiotechnology</i> , <b>2018</b> , 16, 85	9.4	21
97	A model for the drag and heat transfer of spheres in the laminar regime at high temperature differences. <i>International Journal of Thermal Sciences</i> , <b>2018</b> , 133, 98-105	4.1	21
96	In Silico Design of Optimal Dissolution Kinetics of Fe-Doped ZnO Nanoparticles Results in Cancer-Specific Toxicity in a Preclinical Rodent Model. <i>Advanced Healthcare Materials</i> , <b>2017</b> , 6, 1601379	10.1	20
95	Phase interferometric particle imaging for simultaneous measurements of evaporating micron-sized droplet and nanoscale size changes. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 041905	3.4	20
94	Parametrization of nanoparticles: development of full-particle nanodescriptors. <i>Nanoscale</i> , <b>2016</b> , 8, 16243-16250	4.7	20
93	Contact behavior of size fractionated TiO <sub>2</sub> nanoparticle agglomerates and aggregates. <i>Powder Technology</i> , <b>2014</b> , 256, 345-351	5.2	19
92	Structure-function relationships of conventionally and flame made Pd-doped sensors studied by X-ray absorption spectroscopy and DC-resistance. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 219, 315-323	8.5	19
91	Flame-made Particles for Sensors, Catalysis, and Energy Storage Applications. <i>Energy &amp; Fuels</i> , <b>2020</b> , 34, 13209-13224	4.1	19
90	Experimental investigation on microexplosion of single isolated burning droplets containing titanium tetraisopropoxide for nanoparticle production. <i>Proceedings of the Combustion Institute</i> , <b>2017</b> , 36, 1011-1018	5.9	18



89	The gas-phase formation of tin dioxide nanoparticles in single droplet combustion and flame spray pyrolysis. <i>Combustion and Flame</i> , <b>2020</b> , 215, 389-400	5.3	17
88	Determination of the Flat Band Potential of Nanoparticles in Porous Electrodes by Blocking the Substrate Electrolyte Contact. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 2796-2805	3.8	17
87	Asymmetrical Double Flame Spray Pyrolysis-Designed SiO/CeZrO for the Dry Reforming of Methane. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 25766-25777	9.5	17
86	Model-Based Nanoengineered Pharmacokinetics of Iron-Doped Copper Oxide for Nanomedical Applications. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 1828-1836	16.4	17
85	Simultaneous measurement of monocomponent droplet temperature/refractive index, size and evaporation rate with phase rainbow refractometry. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2018</b> , 214, 146-157	2.1	16
84	Nanoparticle-induced inflammation can increase tumor malignancy. <i>Acta Biomaterialia</i> , <b>2018</b> , 68, 99-112	10.8	15
83	Dependencies of the Adhesion Forces between TiO <sub>2</sub> Nanoparticles on Size and Ambient Humidity. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 15294-15303	3.8	15
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