Lutz MÃ¤dler

List of Publications by Year
in descending order

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216 papers	30,060 citations	19608 61 h-index	4535 171 g-index
223 all docs	223 docs citations	223 times ranked	32956 citing authors

#	Article	IF	Citations
1	Toxic Potential of Materials at the Nanolevel. Science, 2006, 311, 622-627.	6.0	7,944
2	Understanding biophysicochemical interactions at the nanoâ€“bio interface. Nature Materials, 2009, 8, 543-557.	13.3	6,046
3	Comparison of the Mechanism of Toxicity of Zinc Oxide and Cerium Oxide Nanoparticles Based on Dissolution and Oxidative Stress Properties. ACS Nano, 2008, 2, 2121-2134.	7.3	2,145
4	Use of Metal Oxide Nanoparticle Band Gap To Develop a Predictive Paradigm for Oxidative Stress and Acute Pulmonary Inflammation. ACS Nano, 2012, 6, 4349-4368.	7.3	718
5	Controlled synthesis of nanostructured particles by flame spray pyrolysis. Journal of Aerosol Science, 2002, 33, 369-389.	1.8	664
6	Flame spray pyrolysis: An enabling technology for nanoparticles design and fabrication. Nanoscale, 2010, 2, 1324.	2.8	558
7	Use of a Rapid Cytotoxicity Screening Approach To Engineer a Safer Zinc Oxide Nanoparticle through Iron Doping. ACS Nano, 2010, 4, 15-29.	7.3	464
8	Flame Synthesis of Nanoparticles. Chemical Engineering and Technology, 2001, 24, 583-596.	0.9	380
9	Nanoparticle synthesis at high production rates by flame spray pyrolysis. Chemical Engineering Science, 2003, 58, 1969-1976.	1.9	353
10	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, 11270-11278.	6.6	346
11	Flame-made Ceria Nanoparticles. Journal of Materials Research, 2002, 17, 1356-1362.	1.2	341
12	Decreased Dissolution of ZnO by Iron Doping Yields Nanoparticles with Reduced Toxicity in the Rodent Lung and Zebrafish Embryos. ACS Nano, 2011, 5, 1223-1235.	7.3	341
13	Photocatalytic H₂ Evolution over TiO₂ Nanoparticles. The Synergistic Effect of Anatase and Rutile. Journal of Physical Chemistry C, 2010, 114, 2821-2829.	1.5	335
14	Direct formation of highly porous gas-sensing films by in situ thermophoretic deposition of flame-made Pt/SnO2 nanoparticles. Sensors and Actuators B: Chemical, 2006, 114, 283-295.	4.0	280
15	Flame spray synthesis of tin dioxide nanoparticles for gas sensing. Sensors and Actuators B: Chemical, 2004, 98, 148-153.	4.0	216
16	Homogeneous ZnO Nanoparticles by Flame Spray Pyrolysis. Journal of Nanoparticle Research, 2002, 4, 337-343.	0.8	208
17	Stability, Bioavailability, and Bacterial Toxicity of ZnO and Iron-Doped ZnO Nanoparticles in Aquatic Media. Environmental Science & Technology, 2011, 45, 755-761.	4.6	206
18	Toxicity of 11 Metal Oxide Nanoparticles to Three Mammalian Cell Types <i>In V.itro</i>. Current Topics in Medicinal Chemistry, 2015, 15, 1914-1929.	1.0	190

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19	Flame sprayed visible light-active Fe-TiO2 for photomineralisation of oxalic acid. Catalysis Today, 2007, 120, 203-213.	2.2	183
20	High Content Screening in Zebrafish Speeds up Hazard Ranking of Transition Metal Oxide Nanoparticles. ACS Nano, 2011, 5, 7284-7295.	7.3	176
21	Direct (one-step) synthesis of <mml:math altimg="si30.gif" display="inline" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://. Chemical Engineerin	1.9	175
22	Toxicity of 12 metal-based nanoparticles to algae, bacteria and protozoa. Environmental Science: Nano, 2015, 2, 630-644.	2.2	174
23	Flame-made platinum/alumina: structural properties and catalytic behaviour in enantioselective hydrogenation. Journal of Catalysis, 2003, 213, 296-304.	3.1	153
24	Bismuth Oxide Nanoparticles by Flame Spray Pyrolysis. Journal of the American Ceramic Society, 2002, 85, 1713-1718.	1.9	153
25	No time to loseâ€"high throughput screening to assess nanomaterial safety. Nanoscale, 2011, 3, 1345.	2.8	153
26	Sensing low concentrations of CO using flame-spray-made Pt/SnO2 nanoparticles. Journal of Nanoparticle Research, 2006, 8, 783-796.	0.8	149
27	Rapid synthesis of stable ZnO quantum dots. Journal of Applied Physics, 2002, 92, 6537-6540.	1.1	146
28	The Fate of ZnO Nanoparticles Administered to Human Bronchial Epithelial Cells. ACS Nano, 2012, 6, 4921-4930.	7.3	146
29	Nanomaterials in the Environment: From Materials to High-Throughput Screening to Organisms. ACS Nano, 2011, 5, 13-20.	7.3	145
30	Nanorods of ZnO Made by Flame Spray Pyrolysis. Chemistry of Materials, 2006, 18, 572-578.	3.2	141
31	PdO Doping Tunes Band-Gap Energy Levels as Well as Oxidative Stress Responses to a Co₃O₄ <i>p</i>-Type Semiconductor in Cells and the Lung. Journal of the American Chemical Society, 2014, 136, 6406-6420.	6.6	136
32	Electrospray evaporation and deposition. Journal of Aerosol Science, 2003, 34, 815-836.	1.8	130
33	Flame Preparation of Visible-Light-Responsive BiVO₄ Oxygen Evolution Photocatalysts with Subsequent Activation via Aqueous Route. ACS Applied Materials & Interfaces, 2011, 3, 1997-2004.	4.0	128
34	Toxicity of Metal Oxide Nanoparticles in <i>Escherichia coli</i> Correlates with Conduction Band and Hydration Energies. Environmental Science & Technology, 2015, 49, 1105-1112.	4.6	127
35	Metal oxide nanomaterials in seawater: Linking physicochemical characteristics with biological response in sea urchin development. Journal of Hazardous Materials, 2011, 192, 1565-1571.	6.5	126
36	Flame synthesis of nanocrystalline ceriaâ€"zirconia: effect of carrier liquid. Chemical Communications, 2003, , 588-589.	2.2	122

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37	One-step aerosol synthesis of nanoparticle agglomerate films: simulation of film porosity and thickness. Nanotechnology, 2006, 17, 4783-4795.	1.3	121
38	Zebrafish Highâ€Throughput Screening to Study the Impact of Dissolvable Metal Oxide Nanoparticles on the Hatching Enzyme, ZHE1. Small, 2013, 9, 1776-1785.	5.2	112
39	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, 9357-9372.	7.3	108
40	Safe-by-Design CuO Nanoparticles<i>via</i>Fe-Doping, Cuâ€“O Bond Length Variation, and Biological Assessment in Cells and Zebrafish Embryos. ACS Nano, 2017, 11, 501-515.	7.3	107
41	Protein adsorption on colloidal alumina particles functionalized with amino, carboxyl, sulfonate and phosphate groups. Acta Biomaterialia, 2012, 8, 1221-1229.	4.1	104
42	Dispersion of TiO ₂ Nanoparticle Agglomerates by <i>Pseudomonas aeruginosa</i>. Applied and Environmental Microbiology, 2010, 76, 7292-7298.	1.4	102
43	Inter-relationship between Pt oxidation states on TiO2 and the photocatalytic mineralisation of organic matters. Journal of Catalysis, 2007, 251, 271-280.	3.1	100
44	Criteria for Flame-Spray Synthesis of Hollow, Shell-Like, or Inhomogeneous Oxides. Journal of the American Ceramic Society, 2005, 88, 1388-1393.	1.9	96
45	Flame-made nanocrystalline ceria/zirconia: structural properties and dynamic oxygen exchange capacity. Journal of Catalysis, 2003, 220, 35-43.	3.1	91
46	Simultaneous deposition of Au nanoparticles during flame synthesis of TiO₂ and SiO₂. Journal of Materials Research, 2003, 18, 115-120.	1.2	89
47	Transparent Nanocomposites of Radiopaque, Flame-Made Ta2O5/SiO2Particles in an Acrylic Matrix. Advanced Functional Materials, 2005, 15, 830-837.	7.8	88
48	Two-Nozzle Flame Synthesis of Pt/Ba/Al2O3 for NOx Storage. Chemistry of Materials, 2006, 18, 2532-2537.	3.2	87
49	Nanoparticles for radiooncology: Mission, vision, challenges. Biomaterials, 2017, 120, 155-184.	5.7	87
50	Liquid-fed Aerosol Reactors for One-step Synthesis of Nano-structured Particles. KONA Powder and Particle Journal, 2004, 22, 107-120.	0.9	72
51	Adhesion Mechanisms of the Contact Interface of TiO₂ Nanoparticles in Films and Aggregates. Langmuir, 2012, 28, 11457-11464.	1.6	71
52	Direct measurement of entrainment during nanoparticle synthesis in spray flames. Combustion and Flame, 2006, 144, 809-820.	2.8	70
53	Growth of Ultrafine Single Crystalline WO₃ Nanoparticles Using Flame Spray Pyrolysis. Crystal Growth and Design, 2010, 10, 632-639.	1.4	70
54	Transport of Nanoparticles in Gases: Overview and Recent Advances. Aerosol and Air Quality Research, 2007, 7, 304-342.	0.9	70

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55	Multipole expansion of circularly symmetric Bessel beams of arbitrary order for scattering calculations. Optics Communications, 2017, 387, 102-109.	1.0	69
56	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.	4.0	69
57	General description of circularly symmetric Bessel beams of arbitrary order. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 184, 218-232.	1.1	68
58	Screening Precursorâ€“Solvent Combinations for Li₄Ti₅O₁₂Energy Storage Material Using Flame Spray Pyrolysis. ACS Applied Materials & Interfaces, 2017, 9, 37760-37777.	4.0	68
59	Independent Control of Metal Cluster and Ceramic Particle Characteristics During One-step Synthesis of Pt/TiO2. Journal of Materials Research, 2005, 20, 2568-2577.	1.2	66
60	Flame aerosol deposited Li4Ti5O12 layers for flexible, thin film all-solid-state Li-ion batteries. Nano Energy, 2018, 49, 564-573.	8.2	66
61	Flame spray pyrolysis for sensing at the nanoscale. Nanotechnology, 2013, 24, 442001.	1.3	63
62	The role of microexplosions in flame spray synthesis for homogeneous nanopowders from lowâ€cost metal precursors. AIChE Journal, 2016, 62, 381-391.	1.8	63
63	Sensing of CH4, CO and ethanol with in situ nanoparticle aerosol-fabricated multilayer sensors. Sensors and Actuators B: Chemical, 2007, 127, 63-68.	4.0	62
64	A review of contact force models between nanoparticles in agglomerates, aggregates, and films. Journal of Aerosol Science, 2021, 153, 105719.	1.8	61
65	Disruptive burning of precursor/solvent droplets in flameâ€spray synthesis of nanoparticles. AIChE Journal, 2013, 59, 4553-4566.	1.8	59
66	Fundamental studies on SnO2 by means of simultaneous work function change and conduction measurements. Thin Solid Films, 2005, 490, 43-47.	0.8	58
67	Custom-Designed Nanomaterial Libraries for Testing Metal Oxide Toxicity. Accounts of Chemical Research, 2013, 46, 632-641.	7.6	58
68	Repetitive Dosing of Fumed Silica Leads to Profibrogenic Effects through Unique Structureâ€“Activity Relationships and Biopersistence in the Lung. ACS Nano, 2016, 10, 8054-8066.	7.3	58
69	Highly active Coâ€“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.	2.1	57
70	Double flame spray pyrolysis as a novel technique to synthesize alumina-supported cobalt Fischerâ€“Tropsch catalysts. Catalysis Today, 2013, 214, 90-99.	2.2	55
71	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.	6.6	55
72	Quenched, nanocrystalline In4Sn3O12 high temperature phase for gas sensing applications. Sensors and Actuators B: Chemical, 2012, 161, 740-747.	4.0	51

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73	Synthesis of zinc oxide/silica composite nanoparticles by flame spray pyrolysis. Journal of Materials Science, 2002, 37, 4627-4632.	1.7	50
74	Palladium-doped silicaâ€“alumina catalysts obtained from double-flame FSP for chemoselective hydrogenation of the model aromatic ketone acetophenone. Journal of Catalysis, 2013, 302, 10-19.	3.1	50
75	Nanoparticle evolution in flame spray pyrolysisâ€”Process design via experimental and computational analysis. AIChE Journal, 2020, 66, e16885.	1.8	50
76	Interactions of Amino Acids and Polypeptides with Metal Oxide Nanoparticles Probed by Fluorescent Indicator Adsorption and Displacement. ACS Nano, 2012, 6, 5668-5679.	7.3	49
77	Photocatalytic mineralisation of organic compounds: a comparison of flame-made TiO2 catalysts. Topics in Catalysis, 2007, 44, 489-497.	1.3	48
78	Flame-made Particles for Sensors, Catalysis, and Energy Storage Applications. Energy & Fuels, 2020, 34, 13209-13224.	2.5	48
79	Additive manufacturing of heavy rare earth free high-coercivity permanent magnets. Acta Materialia, 2020, 188, 733-739.	3.8	47
80	In situ high temperature X-ray diffraction, transmission electron microscopy and theoretical modeling for the formation of WO₃ crystallites. CrystEngComm, 2015, 17, 6985-6998.	1.3	46
81	The gas-phase formation of tin dioxide nanoparticles in single droplet combustion and flame spray pyrolysis. Combustion and Flame, 2020, 215, 389-400.	2.8	46
82	Evidence for Fe²⁺ in Wurtzite Coordination: Iron Doping Stabilizes ZnO Nanoparticles. Small, 2011, 7, 2879-2886.	5.2	44
83	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.	5.3	44
84	Increasing the amorphous yield of {(Fe 0.6 Co 0.4) 0.75 B 0.2 Si 0.05 } 96 Nb 4 powders by hot gas atomization. Advanced Powder Technology, 2018, 29, 380-385.	2.0	44
85	Nanoparticle aerosol science and technology: an overview. Particuology: Science and Technology of Particles, 2005, 3, 243-254.	0.4	43
86	Enhancing performance of FSP SnO2-based gas sensors through Sb-doping and Pd-functionalization. Sensors and Actuators B: Chemical, 2011, 158, 388-392.	4.0	43
87	Mechanical Properties of Nanoparticle Chain Aggregates by Combined AFM and SEM:Â Isolated Aggregates and Networks. Nano Letters, 2006, 6, 2646-2655.	4.5	42
88	Developmental effects of two different copper oxide nanomaterials in sea urchin (<i>Lytechinus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1	1.6	42
89	Novel Cooling Rate Correlations in Molten Metal Gas Atomization. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 666-677.	1.0	41
90	Preferential oxidation of carbon monoxide over Ptâ€“FeO /CeO2 synthesized by two-nozzle flame spray pyrolysis. Journal of Catalysis, 2015, 329, 248-261.	3.1	40

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91	Contact Forces between TiO2Nanoparticles Governed by an Interplay of Adsorbed Water Layers and Roughness. Langmuir, 2015, 31, 11288-11295.	1.6	40
92	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.	2.4	40
93	Formation of multilayer films for gas sensing by in situ thermophoretic deposition of nanoparticles from aerosol phase. Journal of Materials Research, 2007, 22, 850-857.	1.2	39
94	Environmental Health and Safety Considerations for Nanotechnology. Accounts of Chemical Research, 2013, 46, 605-606.	7.6	38
95	Decrease of the required dopant concentration for Î´-Bi₂O₃crystal stabilization through thermal quenching during single-step flame spray pyrolysis. CrystEngComm, 2016, 18, 2046-2056.	1.3	38
96	Experimental investigation on microexplosion of single isolated burning droplets containing titanium tetraisopropoxide for nanoparticle production. Proceedings of the Combustion Institute, 2017, 36, 1011-1018.	2.4	37
97	Designing Photoelectrodes for Photocatalytic Fuel Cells and Elucidating the Effects of Organic Substrates. ChemSusChem, 2015, 8, 4005-4015.	3.6	36
98	Control of particulate processes: Recent results and future challenges. Powder Technology, 2007, 175, 1-7.	2.1	35
99	Efficient internalization and intracellular translocation of inhaled gold nanoparticles in rat alveolar macrophages. Nanomedicine, 2012, 7, 855-865.	1.7	35
100	Conduction mechanism in undoped and antimony doped SnO2 based FSP gas sensors. Sensors and Actuators B: Chemical, 2013, 188, 631-636.	4.0	35
101	Maximizing Activity and Stability by Turning Gold Catalysis Upside Down: Oxide Particles on Nanoporous Gold. ChemCatChem, 2013, 5, 2037-2043.	1.8	35
102	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.	5.5	35
103	Modelâ€Based Nanoengineered Pharmacokinetics of Ironâ€Doped Copper Oxide for Nanomedical Applications. Angewandte Chemie - International Edition, 2020, 59, 1828-1836.	7.2	35
104	Title is missing!. Journal of Nanoparticle Research, 2003, 5, 191-198.	0.8	34
105	Ru-Doped Cobaltâ˘'Zirconia Nanocomposites by Flame Synthesis: Physicochemical and Catalytic Properties. Chemistry of Materials, 2008, 20, 4069-4079.	3.2	34
106	Role of Palladium in Iron Based Fischerâ˘'Tropsch Catalysts Prepared by Flame Spray Pyrolysis. Journal of Physical Chemistry C, 2011, 115, 1302-1310.	1.5	33
107	Implementation of a Multidisciplinary Approach to Solve Complex Nano EHS Problems by the UC Center for the Environmental Implications of Nanotechnology. Small, 2013, 9, 1428-1443.	5.2	32
108	High-Throughput Exploration of Evolutionary Structural Materials. HTM - Journal of Heat Treatment and Materials, 2018, 73, 3-12.	0.1	32

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109	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.	2.6	32
110	Dopant-free, polymorphic design of TiO2 nanocrystals by flame aerosol synthesis. Chemical Engineering Science, 2011, 66, 2409-2416.	1.9	31
111	Simulation of gas diffusion in highly porous nanostructures by direct simulation Monte Carlo. Chemical Engineering Science, 2014, 105, 69-76.	1.9	31
112	Influence of single- and double-flame spray pyrolysis on the structure of MnOx/Î³-Al2O3 and FeOx/Î³-Al2O3 catalysts and their behaviour in CO removal under lean exhaust gas conditions. Catalysis Science and Technology, 2015, 5, 455-464.	2.1	31
113	Time-resolved detection of diffusion limited temperature gradients inside single isolated burning droplets using Rainbow Refractometry. Combustion and Flame, 2016, 168, 255-269.	2.8	30
114	Parametrization of nanoparticles: development of full-particle nanodescriptors. Nanoscale, 2016, 8, 16243-16250.	2.8	30
115	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.	1.1	30
116	The impact of nanoparticle-driven lysosomal alkalinization on cellular functionality. Journal of Nanobiotechnology, 2018, 16, 85.	4.2	30
117	Electrochemical Behavior of Single CuO Nanoparticles: Implications for the Assessment of their Environmental Fate. Small, 2018, 14, e1801765.	5.2	30
118	Transfer of highly porous nanoparticle layers to various substrates through mechanical compression. Nanoscale, 2013, 5, 3764.	2.8	29
119	Nanoscale mixing during double-flame spray synthesis of heterostructured nanoparticles. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	29
120	In Silico Design of Optimal Dissolution Kinetics of Feâ€Doped ZnO Nanoparticles Results in Cancerâ€Specific Toxicity in a Preclinical Rodent Model. Advanced Healthcare Materials, 2017, 6, 1601379.	3.9	29
121	Phase interferometric particle imaging for simultaneous measurements of evaporating micron-sized droplet and nanoscale size changes. Applied Physics Letters, 2017, 111, .	1.5	29
122	Correlating filler transparency with inorganic/polymer composite transparency. Composites Part A: Applied Science and Manufacturing, 2007, 38, 2451-2459.	3.8	28
123	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.	1.8	28
124	Reducing cohesion of metal powders for additive manufacturing by nanoparticle dry-coating. Powder Technology, 2021, 379, 585-595.	2.1	28
125	Structureâ€“conductivity relations of simulated highly porous nanoparticle aggregate films. Journal of Nanoparticle Research, 2010, 12, 853-863.	0.8	27
126	Determination of the Flat Band Potential of Nanoparticles in Porous Electrodes by Blocking the Substrateâ€“Electrolyte Contact. Journal of Physical Chemistry C, 2018, 122, 2796-2805.	1.5	27

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127	Phase-selective laserâ€“induced breakdown spectroscopy in flame spray pyrolysis for iron oxide nanoparticle synthesis. Proceedings of the Combustion Institute, 2021, 38, 1711-1718.	2.4	27
128	Visibly transparent & radiopaque inorganic organic composites from flame-made mixed-oxide fillers. Journal of Nanoparticle Research, 2006, 8, 323-333.	0.8	26
129	Feâ€Doped ZnO Nanoparticles: The Oxidation Number and Local Charge on Iron, Studied by ⁵⁷Fe MÃ¶ÃŸbauer Spectroscopy and DFT Calculations. Chemistry - A European Journal, 2013, 19, 3287-3291.	1.7	26
130	Asymmetrical Double Flame Spray Pyrolysis-Designed SiO2/Ce0.7Zr0.3O2 for the Dry Reforming of Methane. ACS Applied Materials & Interfaces, 2019, 11, 25766-25777.	4.0	26
131	Two-Nozzle Flame Spray Pyrolysis (FSP) Synthesis of CoMo/Al2O3 Hydrotreating Catalysts. Catalysis Letters, 2013, 143, 386-394.	1.4	25
132	Nanoparticle-induced inflammation can increase tumor malignancy. Acta Biomaterialia, 2018, 68, 99-112.	4.1	24
133	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.	1.1	24
134	Unifying double flame spray pyrolysis with lanthanum doping to restrict cobaltâ€“aluminate formation in Co/Al₂O₃ catalysts for the dry reforming of methane. Catalysis Science and Technology, 2019, 9, 4970-4980.	2.1	23
135	Contact behavior of size fractionated TiO2 nanoparticle agglomerates and aggregates. Powder Technology, 2014, 256, 345-351.	2.1	21
136	Structureâ€“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.	4.0	21
137	A High Temperature Drop-On-Demand Droplet Generator for Metallic Melts. Micromachines, 2019, 10, 477.	1.4	21
138	Rare-Earth-Doped Y₄Al₂O₉ Nanoparticles for Stable Light-Converting Phosphors. ACS Applied Nano Materials, 2020, 3, 699-710.	2.4	21
139	Surface Functionalization of Biomedical Ti-6Al-7Nb Alloy by Liquid Metal Dealloying. Nanomaterials, 2020, 10, 1479.	1.9	19
140	Metal Sulfide Nanoparticles: Precursor Chemistry. Chemistry - A European Journal, 2021, 27, 6390-6406.	1.7	19
141	Structural and spectroscopic comparison between polycrystalline, nanocrystalline and quantum dot visible light photo-catalyst Bi 2 WO 6. Journal of Solid State Chemistry, 2017, 254, 82-89.	1.4	18
142	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.	1.5	17
143	Effects of FeCl3as oxidizing agent on the conduction mechanisms in polypyrrole (PPy)/pcâ€“ZnO hybrid heterojunctions grown by oxidative chemical vapor deposition. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1537-1544.	2.4	17
144	Dependencies of the Adhesion Forces between TiO₂ Nanoparticles on Size and Ambient Humidity. Journal of Physical Chemistry C, 2017, 121, 15294-15303.	1.5	17

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145	Redox Activity and Nanoâ€“Bio Interactions Determine the Skin Injury Potential of Co₃O₄-Based Metal Oxide Nanoparticles toward Zebrafish. ACS Nano, 2020, 14, 4166-4177.	7.3	17
146	INFLUENCE OF ATOMIZATION AND SPRAY PARAMETERS ON THE FLAME SPRAY PROCESS FOR NANOPARTICLE PRODUCTION. Atomization and Sprays, 2014, 24, 495-524.	0.3	16
147	A miniaturized solid contact test with <i>Arthrobacter globiformis</i> for the assessment of the environmental impact of silver nanoparticles. Environmental Toxicology and Chemistry, 2014, 33, 1142-1147.	2.2	16
148	New Process Technologies for the Deposition of Semiconducting Metal Oxide Nanoparticles for Sensing. Procedia Engineering, 2014, 87, 24-27.	1.2	16
149	Double Flame-Fabricated High-Performance AlPO₄/LiMn₂O₄ Cathode Material for Li-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 4428-4443.	2.5	16
150	Synthesis of polymer/inorganic nanocomposite films using highly porous inorganic scaffolds. Nanoscale, 2012, 4, 2326.	2.8	15
151	Selectivity Enhancement by Using Double-Layer MOX-Based Gas Sensors Prepared by Flame Spray Pyrolysis (FSP). Sensors, 2016, 16, 1437.	2.1	15
152	Compaction-induced restructuring of aggregated nanoparticle films using the discrete element method. Powder Technology, 2019, 342, 773-779.	2.1	15
153	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.	3.1	15
154	Microexplosions of multicomponent drops in spray flames. Combustion and Flame, 2022, 240, 112043.	2.8	15
155	Gold nanoparticle aerosols for rodent inhalation and translocation studies. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	14
156	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.	1.1	14
157	Solidification of single droplets under combined cooling conditions. IOP Conference Series: Materials Science and Engineering, 2016, 117, 012057.	0.3	13
158	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.	2.8	13
159	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.	1.5	12
160	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.	2.4	12
161	Comparing Coâ€catalytic Effects of ZrO_x, SmO_x, and Pt on CO_x Methanation over Coâ€based Catalysts Prepared by Double Flame Spray Pyrolysis. ChemCatChem, 2021, 13, 2815-2831.	1.8	12
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#	ARTICLE	IF	CITATIONS
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