Michael R Zachariah

List of Publications by Year
in descending order

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277	13,569	22548 61	35168 102
papers	citations	h-index	g-index

279	279	279	14783
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Superior reactivity of ferroelectric Bi2WO6/aluminum metastable intermolecular composite. Chemical Engineering Science, 2022, 247, 116898.	1.9	9
2	Energetic characteristics of hydrogenated amorphous silicon nanoparticles. Chemical Engineering Journal, 2022, 430, 133140.	6.6	13
3	Flame stand-off effects on propagation of 3D printed 94Âwt% nanosized pyrolants loading composites. Chemical Engineering Journal, 2022, 434, 134487.	6.6	6
4	Engineering agglomeration and propagation of high Al/CuO nanothermite loading composites with reactive and non-reactive fibers. , 2022, , .		1
5	Influence of titanium addition on performance of boron-based thermites. Chemical Engineering Journal, 2022, 438, 134837.	6.6	14
6	High-Temperature Interactions of Metal Oxides and a PVDF Binder. ACS Applied Materials & Interfaces, 2022, 14, 8938-8946.	4.0	17
7	Microwave Stimulation of Energetic Al-Based Nanoparticle Composites for Ignition Modulation. ACS Applied Nano Materials, 2022, 5, 2460-2469.	2.4	13
8	Engineered Porosity-Induced Burn Rate Enhancement in Dense Al/CuO Nanothermites. ACS Applied Energy Materials, 2022, 5, 3189-3198.	2.5	8
9	Vaporization-Controlled Energy Release Mechanisms Underlying the Exceptional Reactivity of Magnesium Nanoparticles. ACS Applied Materials & Interfaces, 2022, 14, 17164-17174.	4.0	7
10	Rerouting Pathways of Solid-State Ammonia Borane Energy Release. Journal of Physical Chemistry C, 2022, 126, 48-57.	1.5	9
11	Direct Imaging and Simulation of the Interface Reaction of Metal/Metal Oxide Nanoparticle Laminates. Journal of Physical Chemistry C, 2022, 126, 8684-8691.	1.5	9
12	Effect of alkali metal perchlorate and iodate type on boron ignition: The role of oxidizer phase change. Chemical Engineering Journal, 2022, 446, 136786.	6.6	3
13	Ignition and combustion of Perfluoroalkyl-functionalized aluminum nanoparticles and nanothermite. Combustion and Flame, 2022, 242, 112170.	2.8	18
14	Inducing Oxygen Vacancies to Modulate Ignition Threshold of Nanothermites. Energy & Fuels, 2022, 36, 5878-5884.	2.5	4
15	Improved accuracy for calibrated mass distribution measurements of bimetallic nanoparticles. Journal of Aerosol Science, 2022, 165, 106031.	1.8	1
16	In-Situ Thermochemical Shock-Induced Stress at the Metal/Oxide Interface Enhances Reactivity of Aluminum Nanoparticles. ACS Applied Materials & Interfaces, 2022, 14, 26782-26790.	4.0	13
17	Unzipping polymers significantly enhance energy flux of aluminized composites. Combustion and Flame, 2022, 244, 112242.	2.8	6
18	Ignition and Combustion Characteristics of Al/RDX/NC Nanostructured Microparticles. Combustion Science and Technology, 2021, 193, 2259-2275.	1.2	8

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19	Numerically evaluating energetic composite flame propagation with thermally conductive, high aspect ratio fillers. Chemical Engineering Science, 2021, 229, 116087.	1.9	8
20	Revealing High-Temperature Reduction Dynamics of High-Entropy Alloy Nanoparticles via In Situ Transmission Electron Microscopy. Nano Letters, 2021, 21, 1742-1748.	4.5	26
21	Elucidating the dominant mechanisms in burn rate increase of thermite nanolaminates incorporating nanoparticle inclusions. Nanotechnology, 2021, 32, 215401.	1.3	4
22	Magnetic-Field Directed Vapor-Phase Assembly of Low Fractal Dimension Metal Nanostructures: Experiment and Theory. Journal of Physical Chemistry Letters, 2021, 12, 4085-4091.	2.1	8
23	Carbon Fibers Enhance the Propagation of High Loading Nanothermites: In Situ Observation of Microscopic Combustion. ACS Applied Materials & Interfaces, 2021, 13, 30504-30511.	4.0	18
24	Modelling and simulation of field directed linear assembly of aerosol particles. Journal of Colloid and Interface Science, 2021, 592, 195-204.	5.0	3
25	In-operando thermophysical properties and kinetics measurements of Al-Zr-C composites. Combustion and Flame, 2021, 228, 250-258.	2.8	6
26	Tuning the reactivity and energy release rate of I2O5 based ternary thermite systems. Combustion and Flame, 2021, 228, 210-217.	2.8	23
27	3D Printed Grapheneâ€Based 3000 K Probe. Advanced Functional Materials, 2021, 31, 2102994.	7.8	18
28	Mechanism of microwave-initiated ignition of sensitized energetic nanocomposites. Chemical Engineering Journal, 2021, 415, 128657.	6.6	10
29	Connecting agglomeration and burn rate in a thermite reaction: Role of oxidizer morphology. Combustion and Flame, 2021, 231, 111492.	2.8	29
30	Silicon Nanoparticles for the Reactivity and Energetic Density Enhancement of Energetic-Biocidal Mesoparticle Composites. ACS Applied Materials & Interfaces, 2021, 13, 458-467.	4.0	21
31	Understanding Dimethyl Methylphosphonate Adsorption and Decomposition on Mesoporous CeO₂. ACS Applied Materials & Interfaces, 2021, 13, 54597-54609.	4.0	16
32	Droplet combustion of kerosene augmented by stabilized nanoaluminum/oxidizer composite mesoparticles. Combustion and Flame, 2020, 211, 1-7.	2.8	12
33	Ignition and combustion analysis of direct write fabricated aluminum/metal oxide/PVDF films. Combustion and Flame, 2020, 211, 260-269.	2.8	39
34	Quantifying protein aggregation kinetics using electrospray differential mobility analysis. Journal of Pharmaceutical and Biomedical Analysis, 2020, 177, 112845.	1.4	7
35	Titanium enhanced ignition and combustion of Al/I2O5 mesoparticle composites. Combustion and Flame, 2020, 212, 245-251.	2.8	37
36	Continuous 2000â€¯K droplet-to-particle synthesis. Materials Today, 2020, 35, 106-114.	8.3	43

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37	In Situ Oxidation Studies of High-Entropy Alloy Nanoparticles. ACS Nano, 2020, 14, 15131-15143.	7.3	71
38	High-Temperature Pulse Method for Nanoparticle Redispersion. Journal of the American Chemical Society, 2020, 142, 17364-17371.	6.6	28
39	Hierarchical Polyelemental Nanoparticles as Bifunctional Catalysts for Oxygen Evolution and Reduction Reactions. Advanced Energy Materials, 2020, 10, 2001119.	10.2	39
40	Probing the Reaction Zone of Nanolaminates at â^¼Î¼s Time and â^¼Î¼m Spatial Resolution. Journal of Physical Chemistry C, 2020, 124, 13679-13687.	1.5	32
41	Rapid Laser Pulse Synthesis of Supported Metal Nanoclusters with Kinetically Tunable Size and Surface Density for Electrocatalytic Hydrogen Evolution. ACS Applied Nano Materials, 2020, 3, 2959-2968.	2.4	6
42	Tailoring energy release of nano-Si based thermites via incorporation of Ti nanoparticles. Chemical Engineering Journal, 2020, 396, 124559.	6.6	18
43	Aerosol Synthesis of High Entropy Alloy Nanoparticles. Langmuir, 2020, 36, 1985-1992.	1.6	74
44	Experimental observation of the heat transfer mechanisms that drive propagation in additively manufactured energetic materials. Combustion and Flame, 2020, 215, 417-424.	2.8	23
45	Combustion of 3D printed 90Âwt% loading reinforced nanothermite. Combustion and Flame, 2020, 215, 86-92.	2.8	39
46	Synergistically Chemical and Thermal Coupling between Graphene Oxide and Graphene Fluoride for Enhancing Aluminum Combustion. ACS Applied Materials & Interfaces, 2020, 12, 7451-7458.	4.0	52
47	Spatially focused microwave ignition of metallized energetic materials. Journal of Applied Physics, 2020, 127, .	1.1	9
48	Microwave absorption by small dielectric and semi-conductor coated metal particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 247, 106938.	1.1	14
49	Rapid, high-temperature microwave soldering toward a high-performance cathode/electrolyte interface. Energy Storage Materials, 2020, 30, 385-391.	9.5	51
50	High temperature shockwave stabilized single atoms. Nature Nanotechnology, 2019, 14, 851-857.	15.6	278
51	In-operando high-speed microscopy and thermometry of reaction propagation and sintering in a nanocomposite. Nature Communications, 2019, 10, 3032.	5.8	47
52	Ignition Threshold of Perovskite-Based Oxides for Solid Fuel Oxidation from First-Principles Calculations. Journal of Physical Chemistry C, 2019, 123, 17644-17649.	1.5	2
53	Ultrafast, Controllable Synthesis of Sub-Nano Metallic Clusters through Defect Engineering. ACS Applied Materials & Interfaces, 2019, 11, 29773-29779.	4.0	28
54	Synthesis of Metal Oxide Nanoparticles by Rapid, Highâ€Temperature 3D Microwave Heating. Advanced Functional Materials, 2019, 29, 1904282.	7.8	65

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55	Sarin Decomposition on Pristine and Hydroxylated ZnO: Quantum-Chemical Modeling. Journal of Physical Chemistry C, 2019, 123, 26432-26441.	1.5	16
56	Uniform, Scalable, High-Temperature Microwave Shock for Nanoparticle Synthesis through Defect Engineering. Matter, 2019, 1, 759-769.	5.0	58
57	Why does adding a poor thermal conductor increase propagation rate in solid propellants?. Applied Physics Letters, 2019, 115, .	1.5	11
58	Silver ferrite: a superior oxidizer for thermite-driven biocidal nanoenergetic materials. RSC Advances, 2019, 9, 1831-1840.	1.7	13
59	Thermal Shock Synthesis of Metal Nanoclusters within On-the-Fly Graphene Particles. Langmuir, 2019, 35, 3413-3420.	1.6	9
60	Extremely stable antimonyâ€“carbon composite anodes for potassium-ion batteries. Energy and Environmental Science, 2019, 12, 615-623.	15.6	358
61	Vapor-Phase Strategy to Pillaring of Two-Dimensional Zeolite. Journal of the American Chemical Society, 2019, 141, 8712-8716.	6.6	27
62	Ultrafast, scalable laser photothermal synthesis and writing of uniformly dispersed metal nanoclusters in polymer films. Nanoscale, 2019, 11, 13354-13365.	2.8	6
63	Controlling the energetic characteristics of micro energy storage device by in situ deposition Al/MoO3 nanolaminates with varying internal structure. Chemical Engineering Journal, 2019, 373, 345-354.	6.6	41
64	Direct Writing of a 90 wt% Particle Loading Nanothermite. Advanced Materials, 2019, 31, e1806575.	11.1	63
65	Architecture Can Significantly Alter the Energy Release Rate from Nanocomposite Energetics. ACS Applied Polymer Materials, 2019, 1, 982-989.	2.0	36
66	Fixed Feed Temperature-Programmed Modulationâ€”A Quantitative Method To Obtain Thermophysical Parameters: Application to Chemical Warfare Agent Adsorbents. Journal of Physical Chemistry C, 2019, 123, 12694-12705.	1.5	2
67	Pre-stressing aluminum nanoparticles as a strategy to enhance reactivity of nanothermite composites. Combustion and Flame, 2019, 205, 33-40.	2.8	35
68	Millisecond synthesis of CoS nanoparticles for highly efficient overall water splitting. Nano Research, 2019, 12, 2259-2267.	5.8	85
69	Fast quantification of nanorod geometry by DMA-spICP-MS. Analyst, The, 2019, 144, 2275-2283.	1.7	14
70	Transient, in situ synthesis of ultrafine ruthenium nanoparticles for a high-rate Liâ€“CO₂ battery. Energy and Environmental Science, 2019, 12, 1100-1107.	15.6	129
71	Triisobutylaluminum additive for liquid hydrocarbon burn enhancement. Combustion and Flame, 2019, 200, 53-59.	2.8	0
72	Adsorption and Destruction of the G-Series Nerve Agent Simulant Dimethyl Methylphosphonate on Zinc Oxide. ACS Catalysis, 2019, 9, 902-911.	5.5	54

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73	Comparison study of the ignition and combustion characteristics of directly-written Al/PVDF, Al/Viton and Al/THV composites. Combustion and Flame, 2019, 201, 181-186.	2.8	127
74	On the promotion of high temperature AP decomposition with silica mesoparticles. Combustion and Flame, 2019, 200, 296-302.	2.8	22
75	Performance of iodine oxides/iodic acids as oxidizers in thermite systems. Combustion and Flame, 2018, 191, 335-342.	2.8	28
76	Analytical expression for the rotational friction coefficient of DLCA aggregates over the entire Knudsen regime. Aerosol Science and Technology, 2018, 52, 209-221.	1.5	5
77	The effect of electric-field-induced alignment on the electrical mobility of fractal aggregates. Aerosol Science and Technology, 2018, 52, 524-535.	1.5	6
78	Carbon addition lowers initiation and iodine release temperatures from iodine oxide-based biocidal energetic materials. Carbon, 2018, 130, 410-415.	5.4	19
79	Growth of Sub-5 nm Metal Nanoclusters in Polymer Melt Aerosol Droplets. Langmuir, 2018, 34, 585-594.	1.6	17
80	Ignition of Nanoscale Titanium/Potassium Perchlorate Pyrotechnic Powder: Reaction Mechanism Study. Journal of Physical Chemistry C, 2018, 122, 10792-10800.	1.5	29
81	Measured in-situ mass absorption spectra for nine forms of highly-absorbing carbonaceous aerosol. Carbon, 2018, 136, 85-93.	5.4	32
82	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. Science, 2018, 359, 1489-1494.	6.0	1,065
83	Study of C/Doped Î´-Bi₂O₃ Redox Reactions by in Operando Synchrotron X-ray Diffraction: Bond Energy/Oxygen Vacancy and Reaction Kinetics Relationships. Journal of Physical Chemistry C, 2018, 122, 8796-8803.	1.5	12
84	High speed 2-dimensional temperature measurements of nanothermite composites: Probing thermal vs. Gas generation effects. Journal of Applied Physics, 2018, 123, .	1.1	59
85	One-step solvent-free mechanochemical synthesis of metal iodate fine powders. Powder Technology, 2018, 324, 62-68.	2.1	15
86	Stabilized microparticle aggregates of oxygen-containing nanoparticles in kerosene for enhanced droplet combustion. Combustion and Flame, 2018, 187, 77-86.	2.8	35
87	Surface Modification of Cisplatin-Complexed Gold Nanoparticles and Its Influence on Colloidal Stability, Drug Loading, and Drug Release. Langmuir, 2018, 34, 154-163.	1.6	27
88	Mesoporous Silica Spheres Incorporated Aluminum/Poly (Vinylidene Fluoride) for Enhanced Burning Propellants. Advanced Engineering Materials, 2018, 20, 1700547.	1.6	34
89	What atomic properties of metal oxide control the reaction threshold of solid elemental fuels?. Physical Chemistry Chemical Physics, 2018, 20, 26885-26891.	1.3	3
90	Ignition and Combustion Characterization of Ca(IO₃)₂â€based Pyrotechnic Composites with B, Al, and Ti. Propellants, Explosives, Pyrotechnics, 2018, 43, 977-985.	1.0	13

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91	In Situ â€œChainmail Catalystâ€•Assembly in Lowâ€Tortuosity, Hierarchical Carbon Frameworks for Efficient and Stable Hydrogen Generation. Advanced Energy Materials, 2018, 8, 1801289.	10.2	79
92	Mechanistic Studies of [AlCp*]4Combustion. Inorganic Chemistry, 2018, 57, 8181-8188.	1.9	4
93	Preparation and combustion of laminated iodine containing aluminum/polyvinylidene fluoride composites. Combustion and Flame, 2018, 197, 120-126.	2.8	26
94	Boron ignition and combustion with doped Î´-Bi2O3: Bond energy/oxygen vacancy relationships. Combustion and Flame, 2018, 197, 127-133.	2.8	48
95	Aggregate shape determination via light scattering by aligned and randomly oriented polydisperse aggregates. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 219, 37-45.	1.1	1
96	Reaction mechanism of Al-CuO nanothermites with addition of multilayer graphene. Thermochimica Acta, 2018, 666, 60-65.	1.2	54
97	Reaction mechanisms of potassium oxysalts based energetic composites. Combustion and Flame, 2017, 177, 1-9.	2.8	30
98	In Situ, Fast, Highâ€Temperature Synthesis of Nickel Nanoparticles in Reduced Graphene Oxide Matrix. Advanced Energy Materials, 2017, 7, 1601783.	10.2	27
99	High Heating Rate Reaction Dynamics of Al/CuO Nanolaminates by Nanocalorimetry-Coupled Time-of-Flight Mass Spectrometry. Journal of Physical Chemistry C, 2017, 121, 2771-2777.	1.5	32
100	Incomplete reactions in nanothermite composites. Journal of Applied Physics, 2017, 121, .	1.1	32
101	Aerosol synthesis of phase pure iodine/iodic biocide microparticles. Journal of Materials Research, 2017, 32, 890-896.	1.2	28
102	Assembly and encapsulation of aluminum NP's within AP/NC matrix and their reactive properties. Combustion and Flame, 2017, 180, 175-183.	2.8	87
103	In Situ High Temperature Synthesis of Single-Component Metallic Nanoparticles. ACS Central Science, 2017, 3, 294-301.	5.3	34
104	Thermal desorption of dimethyl methylphosphonate from MoO₃. Journal of Lithic Studies, 2017, 3, 112-118.	0.1	19
105	Direct In Situ Mass Specific Absorption Spectra of Biomass Burning Particles Generated from Smoldering Hard and Softwoods. Environmental Science & Technology, 2017, 51, 5622-5629.	4.6	10
106	Doped Î´-bismuth oxides to investigate oxygen ion transport as a metric for condensed phase thermite ignition. Physical Chemistry Chemical Physics, 2017, 19, 12749-12758.	1.3	34
107	Friction factor for aerosol fractal aggregates over the entire Knudsen range. Physical Review E, 2017, 95, 013103.	0.8	15
108	Doped Perovskites To Evaluate the Relationship between Fuelâ€“Oxidizer Thermite Ignition and Bond Energy, Electronegativity, and Oxygen Vacancy. Journal of Physical Chemistry C, 2017, 121, 147-152.	1.5	21

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109	Recent Progress on Spray Pyrolysis for High Performance Electrode Materials in Lithium and Sodium Rechargeable Batteries. Advanced Energy Materials, 2017, 7, 1601578.	10.2	120
110	High heating rate decomposition dynamics of copper oxide by nanocalorimetry-coupled time-of-flight mass spectrometry. Chemical Physics Letters, 2017, 689, 26-29.	1.2	23
111	Zeolite-Supported Iron Oxides as Durable and Selective Oxygen Carriers for Chemical Looping Combustion. Energy & Fuels, 2017, 31, 11225-11233.	2.5	11
112	Analytical expression for the friction coefficient of DLCA aggregates based on extended Kirkwoodâ€“Riseman theory. Aerosol Science and Technology, 2017, 51, 766-777.	1.5	9
113	Calculating the rotational friction coefficient of fractal aerosol particles in the transition regime using extended Kirkwood-Riseman theory. Physical Review E, 2017, 96, 013110.	0.8	12
114	Direct Deposit of Fiber Reinforced Energetic NanoComposites. Propellants, Explosives, Pyrotechnics, 2017, 42, 1079-1084.	1.0	15
115	FeS₂ Nanoparticles Embedded in Reduced Graphene Oxide toward Robust, Highâ€Performance Electrocatalysts. Advanced Energy Materials, 2017, 7, 1700482.	10.2	144
116	Crystal structure of a new polymorph of iodic acid,Î´-HIO₃, from powder diffraction. Powder Diffraction, 2017, 32, 261-264.	0.4	5
117	Spectroscopic and Computational Investigation of Room-Temperature Decomposition of a Chemical Warfare Agent Simulant on Polycrystalline Cupric Oxide. Chemistry of Materials, 2017, 29, 7483-7496.	3.2	48
118	Dimethyl Methylphosphonate Adsorption Capacities and Desorption Energies on Ordered Mesoporous Carbons. ACS Applied Materials & Interfaces, 2017, 9, 40638-40644.	4.0	26
119	Nanoaluminum/Nitrocellulose microparticle additive for burn enhancement of liquid fuels. Combustion and Flame, 2017, 176, 220-228.	2.8	43
120	Direct Deposit of Highly Reactive Bi(IO₃)₃â€•Polyvinylidene Fluoride Biocidal Energetic Composite and its Reactive Properties. Advanced Engineering Materials, 2017, 19, 1500532.	1.6	19
121	Investigating the oxidation mechanism of tantalum nanoparticles at high heating rates. Journal of Applied Physics, 2017, 122, 245901.	1.1	9
122	Response to â€œComment on â€˜In situ imaging of ultra-fast loss of nanostructure in nanoparticle aggregatesâ€™â€•[J. Appl. Phys. 119, 066103 (2016)]. Journal of Applied Physics, 2016, 119, 066104.	1.1	1
123	Effect of particle rotation on the drift velocity for nonspherical aerosol particles. Journal of Aerosol Science, 2016, 101, 65-76.	1.8	5
124	Measured Wavelength-Dependent Absorption Enhancement of Internally Mixed Black Carbon with Absorbing and Nonabsorbing Materials. Environmental Science & Technology, 2016, 50, 7982-7990.	4.6	49
125	Probing the Oxidation Mechanism of Ta Nanoparticles via In-Situ and Ex-Situ Ultra-Fast Heating TEM/STEM. Microscopy and Microanalysis, 2016, 22, 780-781.	0.2	3
126	Oxidation and decomposition mechanisms of air sensitive aluminum clusters at high heating rates. Chemical Physics Letters, 2016, 661, 168-172.	1.2	2

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127	The effect of alignment on the electric mobility of soot. Aerosol Science and Technology, 2016, 50, 1003-1016.	1.5	6
128	On-the-fly green generation and dispersion of AgI nanoparticles for cloud seeding nuclei. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	9
129	Ignition and Combustion Characteristics of Nanoaluminum with Copper Oxide Nanoparticles of Differing Oxidation State. Journal of Physical Chemistry C, 2016, 120, 29023-29029.	1.5	29
130	Electrospray-Differential Mobility Hyphenated with Single Particle Inductively Coupled Plasma Mass Spectrometry for Characterization of Nanoparticles and Their Aggregates. Analytical Chemistry, 2016, 88, 8548-8555.	3.2	30
131	Influence of transition metal electronegativity on the oxygen storage capacity of perovskite oxides. Chemical Communications, 2016, 52, 10369-10372.	2.2	28
132	Ultra-fast self-assembly and stabilization of reactive nanoparticles in reduced graphene oxide films. Nature Communications, 2016, 7, 12332.	5.8	123
133	Probing the Reaction Mechanism of Aluminum/Poly(vinylidene fluoride) Composites. Journal of Physical Chemistry B, 2016, 120, 5534-5542.	1.2	145
134	Quantifying the enhanced combustion characteristics of electrospray assembled aluminum mesoparticles. Combustion and Flame, 2016, 167, 472-480.	2.8	46
135	Synergistic effects of ultrafast heating and gaseous chlorine on the neutralization of bacterial spores. Chemical Engineering Science, 2016, 144, 39-47.	1.9	8
136	Direct-Deposition to Create High Particle Loading Propellants with Controlled Architecture: Combustion and Mechanical Properties. , 2016, , .		1
137	Size-Resolved Burn Rate Measurements of Metal NanoParticles. , 2016, , .		1
138	Enhanced thermal decomposition kinetics of poly(lactic acid) sacrificial polymer catalyzed by metal oxide nanoparticles. RSC Advances, 2015, 5, 101745-101750.	1.7	16
139	Nanocalorimetry-Coupled Time-of-Flight Mass Spectrometry: Identifying Evolved Species during High-Rate Thermal Measurements. Analytical Chemistry, 2015, 87, 9740-9744.	3.2	21
140	Time-Resolved Nanosecond Imaging of Nanoscale Condensed Phase Reaction. Journal of Physical Chemistry C, 2015, 119, 2792-2797.	1.5	42
141	Size Resolved High Temperature Oxidation Kinetics of Nano-Sized Titanium and Zirconium Particles. Journal of Physical Chemistry A, 2015, 119, 6171-6178.	1.1	28
142	Electrospray formation and combustion characteristics of iodine-containing Al/CuO nanothermite microparticles. Combustion and Flame, 2015, 162, 2823-2829.	2.8	68
143	Commentary on the heat transfer mechanisms controlling propagation in nanothermites. Combustion and Flame, 2015, 162, 2959-2961.	2.8	48
144	Ignition and Combustion Characterization of Nano-Al-AP and Nano-Al-CuO-AP Micro-sized Composites Produced by Electrospray Technique. Energy Procedia, 2015, 66, 109-112.	1.8	30

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145	Direct Deposit Laminate Nanocomposites with Enhanced Propellent Properties. ACS Applied Materials & Interfaces, 2015, 7, 9103-9109.	4.0	87
146	Persulfate salt as an oxidizer for biocidal energetic nano-thermites. Journal of Materials Chemistry A, 2015, 3, 11838-11846.	5.2	42
147	Application of Nanoâ€Aluminum/Nitrocellulose Mesoparticles in Composite Solid Rocket Propellants. Propellants, Explosives, Pyrotechnics, 2015, 40, 413-418.	1.0	63
148	Evaluating free vs bound oxygen on ignition of nano-aluminum based energetics leads to a critical reaction rate criterion. Journal of Applied Physics, 2015, 118, .	1.1	21
149	Molecular Aluminum Additive for Burn Enhancement of Hydrocarbon Fuels. Journal of Physical Chemistry A, 2015, 119, 11084-11093.	1.1	28
150	Probing the Reaction Dynamics of Thermite Nanolaminates. Journal of Physical Chemistry C, 2015, 119, 20401-20408.	1.5	47
151	Electrospray Deposition of Energetic Polymer Nanocomposites with High Mass Particle Loadings: A Prelude to 3D Printing of Rocket Motors. Advanced Engineering Materials, 2015, 17, 95-101.	1.6	121
152	Energy release pathways in nanothermites follow through the condensed state. Combustion and Flame, 2015, 162, 258-264.	2.8	67
153	Packing density of rigid aggregates is independent of scale. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9037-9041.	3.3	39
154	Ignition and Reaction Analysis of High Loading Nano-Al/Fluoropolymer Energetic Composite Films. , 2014, , .		11
155	In situ imaging of ultra-fast loss of nanostructure in nanoparticle aggregates. Journal of Applied Physics, 2014, 115, .	1.1	64
156	Understanding the mobility of nonspherical particles in the free molecular regime. Physical Review E, 2014, 89, 022112.	0.8	17
157	Do nanoenergetic particles remain nano-sized during combustion?. Combustion and Flame, 2014, 161, 1408-1416.	2.8	111
158	Low Effective Activation Energies for Oxygen Release from Metal Oxides: Evidence for Massâ€Transfer Limits at High Heating Rates. ChemPhysChem, 2014, 15, 1666-1672.	1.0	44
159	Controlled Formation and Characterization of Dithiothreitol-Conjugated Gold Nanoparticle Clusters. Langmuir, 2014, 30, 3397-3405.	1.6	36
160	Superior electrochemical performance and structure evolution of mesoporous Fe2O3 anodes for lithium-ion batteries. Nano Energy, 2014, 3, 26-35.	8.2	124
161	Synthesis and Reactive Properties of Iron Oxideâ€“Coated Nanoaluminum. Journal of Energetic Materials, 2014, 32, 95-105.	1.0	14
162	Initiation and Reaction in Al/Bi₂O₃Nanothermites: Evidence for the Predominance of Condensed Phase Chemistry. Combustion Science and Technology, 2014, 186, 1209-1224.	1.2	38

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163	Absolute Quantification Method for Protein Concentration. Analytical Chemistry, 2014, 86, 12130-12137.	3.2	13
164	Microsphere Composites of Nano-Al and Nanothermite: An Approach to Better Utilization of Nanomaterials. , 2014, , .		3
165	Mn₃O₄ hollow spheres for lithium-ion batteries with high rate and capacity. Journal of Materials Chemistry A, 2014, 2, 4627-4632.	5.2	155
166	Rotational Diffusion Coefficient (or Rotational Mobility) of a Nanorod in the Free-Molecular Regime. Aerosol Science and Technology, 2014, 48, 139-141.	1.5	13
167	Dependence of Soot Optical Properties on Particle Morphology: Measurements and Model Comparisons. Environmental Science & Technology, 2014, 48, 3169-3176.	4.6	85
168	Gas vs. Condensed Phase Reactions in Nano-Thermites. , 2014, , .		0
169	Development of a Pulsed-Field Differential Mobility Analyzer: A Method for Measuring Shape Parameters for Nonspherical Particles. Aerosol Science and Technology, 2014, 48, 22-30.	1.5	16
170	Assembly and reactive properties of Al/CuO based nanothermite microparticles. Combustion and Flame, 2014, 161, 2203-2208.	2.8	176
171	Probing the Reaction Mechanism for Highly Reactive Nanothermite Formulations. Microscopy and Microanalysis, 2014, 20, 502-503.	0.2	0
172	Enhanced Performance of Alkali Metal Doped Fe₂O₃ and Fe₂O₃/Al₂O₃ Composites As Oxygen Carrier Material in Chemical Looping Combustion. Energy & Fuels, 2013, 27, 4977-4983.	2.5	58
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