Steve F Son

List of Publications by Citations

223 papers	6,331 citations	41 h-index	71 g-index
256 ext. papers	7,421 ext. citations	3.4 avg, IF	5.99 L-index

#	Paper	IF	Citations
223	Metal particle combustion and nanotechnology. *Proceedings of the Combustion Institute*, **2009**, 32, 1819-1838	3.9	543
222	Two-phase modeling of deflagration-to-detonation transition in granular materials: Reduced equations. *Physics of Fluids*, **2001**, 13, 3002-3024	4.4	345
221	Combustion velocities and propagation mechanisms of metastable interstitial composites. *Journal of Applied Physics*, **2005**, 98, 064903	2.5	221
220	Reaction Propagation of Four Nanoscale Energetic Composites (Al/MoO3, Al/WO3, Al/CuO, and B12O3). *Journal of Propulsion and Power*, **2007**, 23, 707-714	1.8	204
219	Ultralow-density nanostructured metal foams: combustion synthesis, morphology, and composition. *Journal of the American Chemical Society*, **2006**, 128, 6589-94	16.4	174
218	Two-phase modeling of deflagration-to-detonation transition in granular materials: A critical examination of modeling issues. *Physics of Fluids*, **1999**, 11, 378-402	4.4	162
217	Combustion of nano-aluminum and liquid water. *Proceedings of the Combustion Institute*, **2007**, 31, 2029-2036	3.9	149
216	Aluminum agglomeration reduction in a composite propellant using tailored Al/PTFE particles. *Combustion and Flame*, **2014**, 161, 311-321	5.3	143
215	Combustion of Nanoscale Al/MoO3 Thermite in Microchannels. *Journal of Propulsion and Power*, **2007**, 23, 715-721	1.8	136
214	Melt dispersion mechanism for fast reaction of nanothermites. *Applied Physics Letters*, **2006**, 89, 071909	3.4	131
213	Flame acceleration and the transition to detonation of stoichiometric ethylene/oxygen in microscale tubes. *Proceedings of the Combustion Institute*, **2007**, 31, 2429-2436	5.9	111
212	Mechanochemical mechanism for fast reaction of metastable intermolecular composites based on dispersion of liquid metal. *Journal of Applied Physics*, **2007**, 101, 083524	2.5	108
211	Thermal explosion in Al-Ni system: influence of mechanical activation. *Journal of Physical Chemistry A*, **2009**, 113, 13541-7	2.8	87
210	Altering Reactivity of Aluminum with Selective Inclusion of Polytetrafluoroethylene through Mechanical Activation. *Propellants, Explosives, Pyrotechnics*, **2013**, 38, 286-295	1.7	86
209	Tailored Reactivity of Ni+Al Nanocomposites: Microstructural Correlations. *Journal of Physical Chemistry C*, **2012**, 116, 21027-21038	3.8	82
208	Novel High Nitrogen Propellant Use in Solid Fuel Micropropulsion. *Journal of Propulsion and Power*, **2004**, 20, 120-126	1.8	82
207	Dynamics of phase transformation during thermal explosion in the Al–Ni system: Influence of mechanical activation. *Physica B: Condensed Matter*, **2010**, 405, 778-784	2.8	81

206	Two-phase modeling of DDT: Structure of the velocity-relaxation zone. *Physics of Fluids*, **1997**, 9, 3885-3897	4.4	78
205	Design and Synthesis of a Series of Nitrogen-Rich Energetic Cocrystals of 5,5?-Dinitro-2H,2H?-3,3?-bi-1,2,4-triazole (DNBT). *Crystal Growth and Design*, **2015**, 15, 2545-2549	3.5	74
204	Steady Deflagration of HMX With Simple Kinetics: A Gas Phase Chain Reaction Model. *Combustion and Flame*, **1998**, 114, 556-568	5.3	73
203	Kinetics of high temperature reaction in Ni-Al system: influence of mechanical activation. *Journal of Physical Chemistry A*, **2010**, 114, 6111-6	2.8	71
202	Dynamic Measurement of the HMX □□Phase Transition by Second Harmonic Generation. *Physical Review Letters*, **1999**, 82, 1213-1216	7.4	70
201	The effect of stoichiometry on the combustion behavior of a nanoscale Al/MoO3 thermite. *Proceedings of the Combustion Institute*, **2009**, 32, 1921-1928	5.9	69
200	Hypergolic ionic liquids to mill, suspend, and ignite boron nanoparticles. *Chemical Communications*, **2012**, 48, 4311-3	5.8	67
199	Combustion of damaged PBX 9501 explosive. *Thermochimica Acta*, **2002**, 384, 261-277	2.9	66
198	Thermal and Impact Reaction Initiation in Ni/Al Heterogeneous Reactive Systems. *Journal of Physical Chemistry C*, **2010**, 114, 14772-14780	3.8	58
197	Burn rate measurements of HMX, TATB, DHT, DAAF, and BTATz. *Proceedings of the Combustion Institute*, **2000**, 28, 919-924	5.9	56
196	Exploring mechanisms for agglomerate reduction in composite solid propellants with polyethylene inclusion modified aluminum. *Combustion and Flame*, **2015**, 162, 846-854	5.3	55
195	The role of gas permeation in convective burning. *International Journal of Multiphase Flow*, **1996**, 22, 923-952	3.6	54
194	Combustion of Silicon/Teflon/Viton and Aluminum/Teflon/Viton Energetic Composites. *Journal of Propulsion and Power*, **2010**, 26, 734-743	1.8	52
193	Combustion and Conversion Efficiency of Nanoaluminum-Water Mixtures. *Combustion Science and Technology*, **2008**, 180, 2127-2142	1.5	51
192	The effect of decorated graphene addition on the burning rate of ammonium perchlorate composite propellants. *Combustion and Flame*, **2017**, 183, 322-329	5.3	49
191	Additive manufacturing of ammonium perchlorate composite propellant with high solids loadings. *Proceedings of the Combustion Institute*, **2019**, 37, 3135-3142	5.9	49
190	Mechanical activation and gasless explosion: Nanostructural aspects. *Chemical Engineering Journal*, **2011**, 174, 677-686	14.7	49
189	Combustion Behaviors Resulting from Bimodal Aluminum Size Distributions in Thermites. *Journal of Propulsion and Power*, **2007**, 23, 181-185	1.8	48

188	Additive manufacturing of multifunctional reactive materials. *Additive Manufacturing*, **2017**, 17, 176-182	6.1	47
187	The Effect of Added Al2O3 on the Propagation Behavior of an Al/CuO Nanoscale Thermite. *Combustion Science and Technology*, **2008**, 180, 1278-1294	1.5	47
186	New High-Nitrogen Materials Based on Nitroguanyl-Tetrazines: Explosive Properties, Thermal Decomposition and Combustion Studies. *Propellants, Explosives, Pyrotechnics*, **2005**, 30, 412-417	1.7	47
185	High-repetition-rate three-dimensional OH imaging using scanned planar laser-induced fluorescence system for multiphase combustion. *Applied Optics*, **2014**, 53, 316-26	1.7	44
184	Combustion characteristics of nanoaluminum, liquid water, and hydrogen peroxide mixtures. *Combustion and Flame*, **2008**, 154, 587-600	5.3	44
183	The effect of encapsulated nanosized catalysts on the combustion of composite solid propellants. *Combustion and Flame*, **2015**, 162, 1821-1828	5.3	42
182	Experimental modeling of explosive blast-related traumatic brain injuries. *NeuroImage*, **2011**, 54 Suppl 1, S45-54	7.9	41
181	Amine-boranes: green hypergolic fuels with consistently low ignition delays. *Chemistry - A European Journal*, **2014**, 20, 16869-72	4.8	40
180	Linear burning rate dynamics of solids subjected to pressure or external radiant heat flux oscillations. *Journal of Propulsion and Power*, **1993**, 9, 222-232	1.8	40
179	High speed X-ray phase contrast imaging of energetic composites under dynamic compression. *Applied Physics Letters*, **2016**, 109, 131903	3.4	39
178	An experimental study of the effects of catalysts on an ammonium perchlorate based composite propellant using 5 kHz PLIF. *Combustion and Flame*, **2012**, 159, 1748-1758	5.3	38
177	High-irradiance laser ignition of explosives. *Combustion Science and Technology*, **2003**, 175, 1551-1571	1.5	37
176	Effect of Solids Loading on Resonant Mixed Al-Bi2O3 Nanothermite Powders. *Propellants, Explosives, Pyrotechnics*, **2013**, 38, 605-610	1.7	36
175	3D printing of extremely viscous materials using ultrasonic vibrations. *Additive Manufacturing*, **2018**, 22, 98-103	6.1	35
174	Ignition and combustion behavior of mechanically activated Al/Mg particles in composite solid propellants. *Combustion and Flame*, **2018**, 194, 410-418	5.3	34
173	Introduction: Nanoscale Composite Energetic Materials. *Journal of Propulsion and Power*, **2007**, 23, 643-648	1.8	34
172	Quasi-steady combustion modeling of homogeneous solid propellants. *Combustion and Flame*, **1995**, 103, 11-26	5.3	34
171	Mechanical, pyrolysis, and combustion characterization of briquetted coal fines with municipal solid waste plastic (MSW) binders. *Fuel*, **2014**, 115, 62-69	7.1	33

170	Microexplosions and ignition dynamics in engineered aluminum/polymer fuel particles. *Combustion and Flame*, **2017**, 176, 162-171	5.3	32
169	Coupling micro and meso-scale combustion models of AP/HTPB propellants. *Combustion and Flame*, **2013**, 160, 982-992	5.3	32
168	Dynamic Observation of a Thermally Activated Structure Change in 1,3,5-Triamino-2,4,6-trinitrobenzene (TATB) by Second Harmonic Generation. *Journal of Physical Chemistry B*, **1999**, 103, 5434-5440	3.4	31
167	The role of microstructure refinement on the impact ignition and combustion behavior of mechanically activated Ni/Al reactive composites. *Journal of Applied Physics*, **2013**, 114, 113501	2.5	30
166	Combustion of micron-aluminum and hydrogen peroxide propellants. *Combustion and Flame*, **2013**, 160, 184-190	5.3	29
165	Graphene Oxide/Ammonium Perchlorate Composite Material for Use in Solid Propellants. *Journal of Propulsion and Power*, **2016**, 32, 682-686	1.8	28
164	Thermal and mechanical response of PBX 9501 under contact excitation. *Journal of Applied Physics*, **2013**, 113, 084904	2.5	27
163	Experimental observation of the flame structure of a bimodal ammonium perchlorate composite propellant using 5 kHz PLIF. *Combustion and Flame*, **2012**, 159, 427-437	5.3	27
162	Characterization of HMX particles in PBX 9501 **1998**,		26
161	Role of gas- and condensed-phase kinetics in burning rate control of energetic solids. *Combustion Theory and Modelling*, **1998**, 2, 293-312	1.5	26
160	Removing hydrochloric acid exhaust products from high performance solid rocket propellant using aluminum-lithium alloy. *Journal of Hazardous Materials*, **2016**, 317, 259-266	12.8	25
159	Performance of Dicyclopentadiene/H2O2-Based Hybrid Rocket Motors with Metal Hydride Additives. *Journal of Propulsion and Power*, **2013**, 29, 1122-1129	1.8	25
158	A mechanism for shattering microexplosions and dispersive boiling phenomena in aluminum□thium alloy based solid propellant. *Proceedings of the Combustion Institute*, **2017**, 36, 2309-2316	3.9	24
157	Photoflash and laser ignition of select high-nitrogen materials. *Combustion and Flame*, **2016**, 167, 207-217	5.3	23
156	Laser ignition of CL-20 (hexanitrohexaazaisowurtzitane) cocrystals. *Combustion and Flame*, **2018**, 188, 104-115	5.3	22
155	Selectively-deposited energetic materials: A feasibility study of the piezoelectric inkjet printing of nanothermites. *Additive Manufacturing*, **2018**, 22, 69-74	6.1	22
154	Nano Aluminum Energetics: The Effect of Synthesis Method on Morphology and Combustion Performance. *Propellants, Explosives, Pyrotechnics*, **2011**, 36, 551-557	1.7	22
153	Feasibility Study and Demonstration of an Aluminum and Ice Solid Propellant. *International Journal of Aerospace Engineering*, **2012**, 2012, 1-11	0.9	22

152	Solid AmineBoranes as High-Performance and Hypergolic Hybrid Rocket Fuels. *Journal of Propulsion and Power*, **2016**, 32, 23-31	1.8	22
151	Two-component additive manufacturing of nanothermite structures via reactive inkjet printing. *Journal of Applied Physics*, **2017**, 122, 184901	2.5	21
150	Combustion of Nanoaluminum and Water Propellants: Effect of Equivalence Ratio and Safety/Aging Characterization. *Propellants, Explosives, Pyrotechnics*, **2013**, 38, 56-66	1.7	21
149	Characterization of components of nano-energetics by small-angle scattering techniques. *Journal of Materials Research*, **2007**, 22, 1907-1920	2.5	21
148	Characterization of Ethylenediamine Bisborane as a Hypergolic Hybrid Rocket Fuel Additive. *Journal of Propulsion and Power*, **2015**, 31, 365-372	1.8	20
147	Tailoring burning rates using reactive wires in composite solid rocket propellants. *Proceedings of the Combustion Institute*, **2017**, 36, 2283-2290	5.9	20
146	Formulation and Characterization of a New Nitroglycerin-Free Double Base Propellant. *Propellants, Explosives, Pyrotechnics*, **2014**, 39, 205-210	1.7	19
145	Rheological Characterization of Monomethylhydrazine Gels. *Journal of Propulsion and Power*, **2013**, 29, 313-320	1.8	19
144	X-Band Microwave Properties and Ignition Predictions of Neat Explosives. *Propellants, Explosives, Pyrotechnics*, **2013**, 38, 810-817	1.7	19
143	Nano-aluminum flame spread with fingering combustion instabilities. *Proceedings of the Combustion Institute*, **2007**, 31, 2617-2624	5.9	19
142	Convective burning in gaps of PBX 9501. *Proceedings of the Combustion Institute*, **2000**, 28, 911-917	5.9	19
141	Combustion of mechanically activated Ni/Al reactive composites with microstructural refinement tailored using two-step milling. *Intermetallics*, **2015**, 66, 88-95	3.5	18
140	The impact of crystal morphology on the thermal responses of ultrasonically-excited energetic materials. *Journal of Applied Physics*, **2016**, 119, 024903	2.5	18
139	Combustion Performance of Several Nanosilicon-Based Nanoenergetics. *Journal of Propulsion and Power*, **2013**, 29, 1435-1444	1.8	18
138	Microexplosion Investigation of Monomethylhydrazine Gelled Droplet with OH Planar Laser-Induced Fluorescence. *Journal of Propulsion and Power*, **2013**, 29, 1303-1310	1.8	18
137	Importance of the gas phase role to the prediction of energetic material behavior: An experimental study. *Journal of Applied Physics*, **2005**, 97, 063505	2.5	18
136	Effects of ammonia borane on the combustion of an ethanol droplet at atmospheric pressure. *Combustion and Flame*, **2013**, 160, 2194-2203	5.3	17
135	Characterization of the Hypergolic Ignition Delay of Ammonia Borane. *Journal of Propulsion and Power*, **2019**, 35, 182-189	1.8	17

134	Performance and Aging of Mn/MnO2as an Environmentally Friendly Energetic Time Delay Composition. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 1312-1317	8.3	16
133	The diffusion flame structure of an ammonium perchlorate based composite propellant at elevated pressures. *Proceedings of the Combustion Institute*, **2013**, 34, 649-656	5.9	16
132	Preparation and Characterization of Energetic Crystals with Nanoparticle Inclusions. *Propellants, Explosives, Pyrotechnics*, **2012**, 37, 635-638	1.7	16
131	Modifying Aluminum Reactivity with Poly(Carbon Monofluoride) via Mechanical Activation. *Propellants, Explosives, Pyrotechnics*, **2013**, 38, 321-326	1.7	16
130	Preparation and Characterization of Aqueous Nanothermite Inks for Direct Deposition on SCB Initiators. *Propellants, Explosives, Pyrotechnics*, **2014**, 39, 463-470	1.7	15
129	Fate and toxicity of CuO nanospheres and nanorods used in Al/CuO nanothermites before and after combustion. *Environmental Science & Technology*, **2013**, 47, 11258-67	10.3	15
128	The effects of crystal proximity and crystal-binder adhesion on the thermal responses of ultrasonically-excited composite energetic materials. *Journal of Applied Physics*, **2017**, 122, 244901	2.5	15
127	An experimental and numerical study of blast induced shock wave mitigation in sandwich structures. *Applied Acoustics*, **2013**, 74, 1-9	3.1	15
126	Simplified Combustion Modeling of Double Base Propellant: Gas Phase Chain Reaction Vs. Thermal Decomposition. *Combustion Science and Technology*, **2000**, 154, 2-30	1.5	15
125	Unsteady combustion of homogeneous energetic solids using the laser-recoil method. *Combustion and Flame*, **1995**, 100, 283-291	5.3	15
124	The Effect of Silicon Powder Characteristics on the Combustion of Silicon/Teflon/Viton Nanoenergetics. *Propellants, Explosives, Pyrotechnics*, **2014**, 39, 337-347	1.7	14
123	Heat generation in an elastic binder system with embedded discrete energetic particles due to high-frequency, periodic mechanical excitation. *Journal of Applied Physics*, **2014**, 116, 204902	2.5	14
122	Combustion and Characterization of Nanoscale Aluminum and Ice Propellants **2008**,		14
121	Prediction of Energetic Material Properties from Electronic Structure Using 3D Convolutional Neural Networks. *Journal of Chemical Information and Modeling*, **2020**, 60, 4457-4473	6.1	14
120	Agglomerate Sizing in Aluminized Propellants Using Digital Inline Holography and Traditional Diagnostics. *Journal of Propulsion and Power*, **2018**, 34, 1002-1014	1.8	13
119	The effect of polymeric binder on composite propellant flame structure investigated with 5kHz OH PLIF. *Combustion and Flame*, **2013**, 160, 1531-1540	5.3	13
118	Oxy-fuel combustion: Laboratory experiments and pilot scale tests. *Fuel*, **2013**, 104, 452-461	7.1	13
117	Altering combustion of silicon/polytetrafluoroethylene with two-step mechanical activation. *Combustion and Flame*, **2015**, 162, 1350-1357	5.3	12

116	Microstructural transformations and kinetics of high-temperature heterogeneous gasless reactions by high-speed x-ray phase-contrast imaging. *Physical Review B*, **2009**, 80,	3.3	12
115	Steady-State Hydrazinium Nitroformate (HNF) Combustion Modeling. *Journal of Propulsion and Power*, **1999**, 15, 772-777	1.8	12
114	RADIATION-AUGMENTED COMBUSTION OF HOMOGENEOUS SOLIDS. *Combustion Science and Technology*, **1995**, 107, 127-154	1.5	12
113	The role of fracture in the impact initiation of Ni-Al intermetallic composite reactives during dynamic loading. *Acta Materialia*, **2017**, 133, 247-257	8.4	11
112	Development and Characterization of a Photopolymeric Binder for Additively Manufactured Composite Solid Propellant Using Vibration Assisted Printing. *Propellants, Explosives, Pyrotechnics*, **2020**, 45, 853-863	1.7	11
111	Void Collapse in Shocked -HMX Single Crystals: Simulations and Experiments. *Propellants, Explosives, Pyrotechnics*, **2020**, 45, 243-253	1.7	11
110	Oxidizer coarse-to-fine ratio effect on microscale flame structure in a bimodal composite propellant. *Combustion and Flame*, **2016**, 163, 406-413	5.3	11
109	Dependence of Nano-Aluminum and Water Propellant Combustion on pH and Rheology. *Combustion Science and Technology*, **2013**, 185, 817-834	1.5	11
108	Ti/C-3Ni/Al as a Replacement Time Delay Composition. *Propellants, Explosives, Pyrotechnics*, **2014**, 39, 138-147	1.7	11
107	Flame spread through cracks of PBX 9501 (a composite octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine-based explosive). *Journal of Applied Physics*, **2006**, 99, 114901	2.5	11
106	Detonation Performance Characterization of a Novel CL-20 Cocrystal Using Microwave Interferometry. *Propellants, Explosives, Pyrotechnics*, **2018**, 43, 38-47	1.7	11
105	Burning rate and flame structure of cocrystals of CL-20 and a polycrystalline composite crystal of HMX/AP. *Combustion and Flame*, **2020**, 219, 129-135	5.3	10
104	Near-surface flame structure characterization of simplified ammonium perchlorate/hydroxyl-terminated polybutadiene compositions. *Combustion and Flame*, **2016**, 164, 201-211	5.3	10
103	Solid-Fuel Regression Rates and Flame Characteristics in an Opposed Flow Burner. *Journal of Propulsion and Power*, **2014**, 30, 1675-1682	1.8	10
102	Simulations of nanoscale Ni/Al multilayer foils with intermediate Ni2Al3 growth. *Journal of Applied Physics*, **2015**, 117, 214904	2.5	10
101	Validation of Numerical Simulations for Nano-Aluminum Composite Solid Propellants. *Journal of Propulsion and Power*, **2011**, 27, 1280-1287	1.8	10
100	Aluminum-ICE (ALICE) Propellants for Hydrogen Generation and Propulsion **2009**,		10
99	Performance and Characterization of Nanoenergetic Materials at Los Alamos. *Materials Research Society Symposia Proceedings*, **2003**, 800, 173		10

98	Insight into the Chemistry of PETN Under Shock Compression Through Ultrafast Broadband Mid-Infrared Absorption Spectroscopy. *Journal of Physical Chemistry A*, **2020**, 124, 7031-7046	2.8	10
97	High speed OH PLIF applied to multiphase combustion (Review). *Combustion, Explosion and Shock Waves*, **2016**, 52, 1-13	1	10
96	Detonation Velocity Measurement of a Hydrogen Peroxide Solvate of CL-20. *Propellants, Explosives, Pyrotechnics*, **2019**, 44, 313-318	1.7	10
95	Tailoring the reactivity of printable Al/PVDF filament. *Combustion and Flame*, **2021**, 223, 110-117	5.3	10
94	Experimental study of blast-induced traumatic brain injury using a physical head model. *Stapp Car Crash Journal*, **2009**, 53, 215-27	1	10
93	Composite Propellant Based on a New Nitrate Ester. *Propellants, Explosives, Pyrotechnics*, **2014**, 39, 684-688	1.7	9
92	Transition from Impact-induced Thermal Runaway to Prompt Mechanochemical Explosion in Nanoscaled Ni/Al Reactive Systems. *Propellants, Explosives, Pyrotechnics*, **2013**, 38, 611-621	1.7	9
91	Dynamic measurements of electrical conductivity in metastable intermolecular composites. *Journal of Applied Physics*, **2006**, 99, 023705	2.5	9
90	X-Ray Phase Contrast Imaging of the Impact of a Single HMX Particle in a Polymeric Matrix. *Propellants, Explosives, Pyrotechnics*, **2019**, 44, 447-454	1.7	8
89	Using time-frequency analysis to determine time-resolved detonation velocity with microwave interferometry. *Review of Scientific Instruments*, **2015**, 86, 044705	1.7	8
88	Performance and Flame Visualization of Dicyclopentadiene Rocket Propellants with Metal Hydride Additives. *Journal of Propulsion and Power*, **2016**, 32, 869-881	1.8	8
87	Aspects of Monomethylhydrazine and Red Fuming Nitric Acid Ignition **2010**,		8
86	Energy release characteristics of the nanoscale aluminum-tungsten oxide hydrate metastable intermolecular composite. *Journal of Applied Physics*, **2007**, 101, 064313	2.5	8
85	Dynamic imaging of the temperature field within an energetic composite using phosphor thermography. *Applied Optics*, **2019**, 58, 4320-4325	1.7	8
84	COMBUSTION OF BIMODAL ALUMINUM PARTICLES AND ICE MIXTURES. *International Journal of Energetic Materials and Chemical Propulsion*, **2012**, 11, 259-273	1.9	8
83	Reactive flow modeling of small scale detonation failure experiments for a baseline non-ideal explosive. *Journal of Applied Physics*, **2016**, 120, 064901	2.5	8
82	The Effects of Confinement on the Fracturing Performance of Printed Nanothermites. *Propellants, Explosives, Pyrotechnics*, **2019**, 44, 47-54	1.7	8
81	Controlled Substrate Destruction Using Nanothermite. *Propellants, Explosives, Pyrotechnics*, **2017**, 42, 579-584	1.7	7

80	The effect of the particle surface and binder properties on the response of polymer bonded explosives at low impact velocities. *Computational Materials Science*, **2019**, 166, 170-178	3.2	7
79	Critical Ignition Criteria for Monomethylhydrazine and Red Fuming Nitric Acid. *Journal of Propulsion and Power*, **2015**, 31, 1184-1192	1.8	7
78	Nanoscale Characterization of Mock Explosive Materials Using Advanced Atomic Force Microscopy Methods. *Journal of Energetic Materials*, **2015**, 33, 51-65	1.6	7
77	Shock-induced reaction synthesis of cubic boron nitride. *Applied Physics Letters*, **2018**, 112, 171903	3.4	7
76	Influence of Ammonia Borane on the Stability of a Liquid Rocket Combustor. *Journal of Propulsion and Power*, **2014**, 30, 290-298	1.8	7
75	Tuning azolium azolate ionic liquids to promote surface interactions with titanium nanoparticles leading to increased passivation and colloidal stability. *Physical Chemistry Chemical Physics*, **2012**, 14, 13194-8	3.6	7
74	Intermetallic Compounds as Fuels for Composite Rocket Propellants **2011**,		7
73	Ignition of Gelled Monomethylhydrazine and Red Fuming Nitric Acid in an Impinging Jet Apparatus **2011**,		7
72	Ammonia Borane Based-Propellants **2008**,		7
71	Characterization of Metastable Intermolecular Composites. *ACS Symposium Series*, **2005**, 227-240	0.4	7
70	Influence of Stoichiometry on the Thrust and Heat Deposition of On-Chip Nanothermites. *Propellants, Explosives, Pyrotechnics*, **2018**, 43, 258-266	1.7	6
69	The effect of doping on the combustion and reaction kinetics of silicon reactives. *Combustion and Flame*, **2013**, 160, 1835-1841	5.3	6
68	Micro-RVE modeling of mechanistic response in porous intermetallics subject to weak and moderate impact loading. *International Journal of Plasticity*, **2013**, 51, 1-32	7.6	6
67	CuO/Al Thermites for Solid Rocket Motor Ignition. *Journal of Propulsion and Power*, **2013**, 29, 1194-1199	1.8	6
66	Numerical modeling of self-propagating reactions in Ru/Al nanoscale multilayer foils. *Applied Physics Letters*, **2015**, 107, 073103	3.4	6
65	Fluoropolymer and aluminum piezoelectric reactives **2012**,		6
64	A benchtop shock physics laboratory: Ultrafast laser driven shock spectroscopy and interferometry methods. *Review of Scientific Instruments*, **2019**, 90, 063001	1.7	5
63	Probing the Reaction Mechanisms Involved in the Decomposition of Solid 1,3,5-Trinitro-1,3,5-triazinane by Energetic Electrons. *Journal of Physical Chemistry A*, **2019**, 123, 9479-9497	2.8	5

62	Detonation Failure Characterization of Homemade Explosives. *Propellants, Explosives, Pyrotechnics*, **2014**, 39, 609-616	1.7	5
61	Unsteady combustion modeling of energetic solids **1995**,		5
60	Unsteady combustion of solid propellants subject to dynamic external radiant heating. *Combustion, Explosion and Shock Waves*, **1993**, 29, 281-285	1	5
59	Localized Heating Near a Rigid Spherical Inclusion in a Viscoelastic Binder Material Under Compressional Plane Wave Excitation. *Journal of Applied Mechanics, Transactions ASME*, **2017**, 84,	2.7	4
58	In-situ X-ray observations of ultrasound-induced explosive decomposition. *Applied Materials Today*, **2019**, 15, 286-294	6.6	4
57	The Elusive Ketene (H CCO) Channel in the Infrared Multiphoton Dissociation of Solid 1,3,5-Trinitro-1,3,5-Triazinane (RDX). *ChemPhysChem*, **2020**, 21, 837-842	3.2	4
56	X-ray Phase Contrast Imaging of the Impact of Multiple HMX Particles in a Polymeric Matrix. *Propellants, Explosives, Pyrotechnics*, **2020**, 45, 607-614	1.7	4
55	Altering Agglomeration in a Composite Propellant with Aluminum–Silicon Eutectic Alloy. *Journal of Propulsion and Power*, **2019**, 35, 1048-1056	1.8	4
54	Further Development of an Aluminum and Water Solid Rocket Propellant **2011**,		4
53	Comment on "Intrinsic Combustion Instability of Solid Energetic Materials". *Journal of Propulsion and Power*, **1997**, 13, 454-456	1.8	4
52	The Effect of Process Parameters on the Structural Energetic Properties of Additively Manufactured Reactive Structures. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **2020**, 142,	1.8	4
51	The role of adhesion and binder stiffness in the impact sensitivity of cast composite energetic materials. *Journal of Applied Physics*, **2020**, 128, 214902	2.5	4
50	Characterization of the influence of aluminum particle size on the temperature of composite-propellant flames using CO absorption and AlO emission spectroscopy. *Proceedings of the Combustion Institute*, **2021**, 38, 4365-4372	5.9	4
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