Alla N Pivkina

List of Publications by Year
in descending order

67 papers	1,642 citations	279487 23 h-index	315357 38 g-index
69 all docs	69 docs citations	69 times ranked	917 citing authors

#	Article	IF	Citations
1	The power of model-fitting kinetic analysis applied to complex thermal decomposition of explosives: reconciling the kinetics of bicyclo-HMX thermolysis in solid state and solution. Journal of Thermal Analysis and Calorimetry, 2022, 147, 3195-3206.	2.0	16
2	Nitroxy- and azidomethyl azofurazans as advanced energetic materials. Defence Technology, 2022, 18, 1369-1381.	2.1	11
3	HMX surface modification with polymers via sc-CO2 antisolvent process: A way to safe and easy-to-handle energetic materials. Chemical Engineering Journal, 2022, 428, 131363.	6.6	34
4	Energetic alkylnitramine-functionalized pentanitro hexaazaisowurtzitanes: towards advanced less sensitive CL-20 analogues. Journal of Materials Chemistry A, 2022, 10, 818-828.	5.2	14
5	Novel energetic oxadiazole assemblies. Mendeleev Communications, 2022, 32, 111-113.	0.6	12
6	Autocatalytic decomposition of energetic materials: interplay of theory and thermal analysis in the study of 5-amino-3,4-dinitropyrazole thermolysis. Physical Chemistry Chemical Physics, 2022, 24, 16325-16342.	1.3	11
7	Atomic force microscopy in energetic materials research: A review. Energetic Materials Frontiers, 2022, 3, 290-302.	1.3	5
8	Bis-(2-difluoroamino-2,2-dinitroethyl)nitramine â€“ Energetic oxidizer and high explosive. Chemical Engineering Journal, 2022, 449, 137816.	6.6	14
9	Nitrogen-rich metal-free salts: a new look at the 5-(trinitromethyl)tetrazolate anion as an energetic moiety. Dalton Transactions, 2021, 50, 13778-13785.	1.6	14
10	Apparent autocatalysis due to liquefaction: thermal decomposition of ammonium 3,4,5-trinitropyrazolate. Physical Chemistry Chemical Physics, 2021, 23, 11797-11806.	1.3	10
11	Learning to fly: thermochemistry of energetic materials by modified thermogravimetric analysis and highly accurate quantum chemical calculations. Physical Chemistry Chemical Physics, 2021, 23, 15522-15542.	1.3	38
12	Novel energetic CNO oxidizer: Pernitro-substituted pyrazolyl-furazan framework. FirePhysChem, 2021, 1, 83-89.	1.5	26
13	Synthesis of 3(5)-aryl-5(3)-pyrazolyl-1,2,4-oxadiazole nitro derivatives. Chemistry of Heterocyclic Compounds, 2021, 57, 828-836.	0.6	6
14	Design and Synthesis of Nitrogenâ€Rich Azoâ€Bridged Furoxanylazoles as Highâ€Performance Energetic Materials. Chemistry - A European Journal, 2021, 27, 14628-14637.	1.7	25
15	Sensitivity of energetic materials: Evidence of thermodynamic factor on a large array of CHNOFCl compounds. Chemical Engineering Journal, 2021, 421, 129804.	6.6	69
16	Synthesis and mutual transformations of nitronium tetrakis(nitrooxy)- and tetrakis(2,2,2-trifluoroacetoxy)borates. New Journal of Chemistry, 2020, 44, 13944-13951.	1.4	2
17	4<i>H</i>-[1,2,3]Triazolo[4,5-<i>c</i>][1,2,5]oxadiazole 5-oxide and Its Salts: Promising Multipurpose Energetic Materials. ACS Applied Energy Materials, 2020, 3, 9401-9407.	2.5	22
18	Nitro-, Cyano-, and Methylfuroxans, and Their Bis-Derivatives: From Green Primary to Melt-Cast Explosives. Molecules, 2020, 25, 5836.	1.7	20

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19	Critical Appraisal of Kinetic Calculation Methods Applied to Overlapping Multistep Reactions. Molecules, 2019, 24, 2298.	1.7	65
20	Supercritical Antisolvent Processing of Nitrocellulose: Downscaling to Nanosize, Reducing Friction Sensitivity and Introducing Burning Rate Catalyst. Nanomaterials, 2019, 9, 1386.	1.9	38
21	Kinetic Parameters of Thermal Decomposition of Furazano-1,2,3,4-Tetrazine-1,3-Dioxide and a Binary Solution Based on It. Combustion, Explosion and Shock Waves, 2019, 55, 629-631.	0.3	3
22	Progress in Additive Manufacturing of Energetic Materials: Creating the Reactive Microstructures with High Potential of Applications. Propellants, Explosives, Pyrotechnics, 2019, 44, 941-969.	1.0	77
23	Assembly of Tetrazolylfuroxan Organic Salts: Multipurpose Green Energetic Materials with High Enthalpies of Formation and Excellent Detonation Performance. Chemistry - A European Journal, 2019, 25, 4225-4233.	1.7	60
24	Exploring enhanced reactivity of nanosized titanium toward oxidation. Combustion and Flame, 2018, 191, 109-115.	2.8	14
25	Utilization of thermite energy for re-entry disruption of detachable rocket elements made of composite polymeric material. Acta Astronautica, 2018, 150, 49-55.	1.7	11
26	Toward reliable characterization of energetic materials: interplay of theory and thermal analysis in the study of the thermal stability of tetranitroacetimidic acid (TNAA). Physical Chemistry Chemical Physics, 2018, 20, 29285-29298.	1.3	24
27	Pyrotechnic heater setup as a calorimeter: Micro- vs. nano- Mg/Fe2O3 thermites. MATEC Web of Conferences, 2018, 243, 00004.	0.1	1
28	Comparative Analysis of Boron Powders Obtained by Various Methods. I. Microstructure and Oxidation Parameters during Heating. Combustion, Explosion and Shock Waves, 2018, 54, 450-460.	0.3	24
29	Kinetic analysis of overlapping multistep thermal decomposition comprising exothermic and endothermic processes: thermolysis of ammonium dinitramide. Physical Chemistry Chemical Physics, 2017, 19, 3254-3264.	1.3	59
30	Comment on â€œStudies on Thermodynamic Properties of FOX-7 and Its Five Closed-Loop Derivativesâ€• Journal of Chemical & Engineering Data, 2017, 62, 575-576.	1.0	21
31	Optimization of the key steps of synthesis and study of the fundamental physicochemical properties of high energy compounds â€" 4-(2,2,2-trinitroethyl)-2,6,8,10,12-pentanitrohexaazaisowurtzitane and 4,10-bis(2,2,2-trinitroethyl)-2,6,8,12-tetranitrohexaazaisowurtzitane. Russian Chemical Bulletin, 2017, 66, 1066-1073.	0.4	16
32	Macro- vs Microcrystalline Wax: Interplay of Evaporation and Decomposition under Pressure Variation. Energy & Fuels, 2017, 31, 8534-8539.	2.5	7
33	Pursuing reliable thermal analysis techniques for energetic materials: decomposition kinetics and thermal stability of dihydroxylammonium 5,5â€²-bistetrazole-1,1â€²-diolate (TKX-50). Physical Chemistry Chemical Physics, 2017, 19, 436-449.	1.3	88
34	Uncontrolled re-entry of satellite parts after finishing their mission in LEO: Titanium alloy degradation by thermite reaction energy. Acta Astronautica, 2017, 135, 69-75.	1.7	13
35	Synergistic Effect of Ammonium Perchlorate on HMX: From Thermal Analysis to Combustion. Springer Aerospace Technology, 2017, , 365-381.	0.2	5
36	Synthesis of 1- and 5-(pyrazolyl)tetrazole amino and nitro derivatives. Chemistry of Heterocyclic Compounds, 2016, 52, 1025-1034.	0.6	23

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37	Novel Melt-Castable Energetic Pyrazole: A Pyrazolyl-Furazan Framework Bearing Five Nitro Groups. Propellants, Explosives, Pyrotechnics, 2016, 41, 789-792.	1.0	36
38	5-Amino-3,4-dinitropyrazole as a Promising Energetic Material. Propellants, Explosives, Pyrotechnics, 2016, 41, 999-1005.	1.0	22
39	New concept of thermokinetic analysis with artificial neural networks. Thermochimica Acta, 2016, 637, 69-73.	1.2	19
40	HP-DSC study of energetic materials. Part I. Overview of pressure influence on thermal behavior. Thermochimica Acta, 2016, 631, 1-7.	1.2	36
41	Catalysis of HMX Decomposition and Combustion. , 2016, , 193-230.		10
42	Ð¡ombustion of Micro- and Nanothermites under Elevating Pressure. Physics Procedia, 2015, 72, 362-365.	1.2	11
43	Thermal Decomposition of Nitropyrazoles. Physics Procedia, 2015, 72, 358-361.	1.2	18
44	Aluminum/HMX nanocomposites: Synthesis, microstructure, and combustion. Combustion, Explosion and Shock Waves, 2015, 51, 100-106.	0.3	25
45	CATALYTIC INFLUENCE OF NANOSIZED TITANIUM DIOXIDE ON THE THERMAL DECOMPOSITION AND COMBUSTION OF HMX. International Journal of Energetic Materials and Chemical Propulsion, 2014, 13, 211-228.	0.2	7
46	Chemistry and thermal decomposition of trinitropyrazoles. Journal of Thermal Analysis and Calorimetry, 2011, 105, 509-516.	2.0	33
47	Comparative study of HMX and CL-20. Journal of Thermal Analysis and Calorimetry, 2011, 105, 529-534.	2.0	44
48	Physicochemical characteristics of the components of energetic condensed systems. Russian Journal of Physical Chemistry B, 2010, 4, 916-922.	0.2	11
49	Influence of Particle Size and Mixing Technology on Combustion of HMX/Al Compositions. Propellants, Explosives, Pyrotechnics, 2010, 35, 226-232.	1.0	38
50	Nanostructured Composites: Structure, Properties, and Applications in Electrochemistry. Nanostructure Science and Technology, 2009, , 201-217.	0.1	0
51	The structure of particles and combustion parameters of compositions with nanoaluminum. Russian Journal of Physical Chemistry B, 2008, 2, 463-469.	0.2	0
52	Nanosized components of energetic systems: Structure, thermal behavior, and combustion. Combustion, Explosion and Shock Waves, 2007, 43, 51-55.	0.3	33
53	Structure, Thermal Properties, and Combustion Behavior of Plasma Synthesized Nano-Aluminum Powders. AIP Conference Proceedings, 2006, , .	0.3	2
54	Specifics of the formation of metal-poly-p-xylylene hybrid nanocomposites. Russian Journal of Physical Chemistry A, 2006, 80, 475-478.	0.1	1

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55	The microstructure of and charge transfer in thin films based on metal-polymer nanocomposites. Russian Journal of Physical Chemistry A, 2006, 80, 1461-1466.	0.1	2
56	Plasma synthesized nano-aluminum powders. Journal of Thermal Analysis and Calorimetry, 2006, 86, 733-738.	2.0	38
57	STRUCTURE AND PROPERTIES OF TITANIUMâ€“POLYMER THIN FILM NANOCOMPOSITES. International Journal of Nanoscience, 2005, 04, 149-161.	0.4	21
58	Mechanochemically activated nano-aluminium: Oxidation behaviour. Journal of Materials Science, 2004, 39, 5451-5453.	1.7	23
59	Mechanical activation of aluminum: 2. Size, shape, and structure of particles. Colloid Journal, 2004, 66, 736-744.	0.5	5
60	Nanomaterials for Heterogeneous Combustion. Propellants, Explosives, Pyrotechnics, 2004, 29, 39-48.	1.0	175
61	Formation and characterization of metal-polymer nanostructured composites. Solid State Ionics, 2002, 147, 415-419.	1.3	92
62	Cold isostatic and explosive isodynamic compaction of Y-TZP nanoparticles. Solid State Ionics, 2002, 154-155, 375-380.	1.3	7
63	Synthesis of Energy-Rich Nanomaterials. Combustion, Explosion and Shock Waves, 2002, 38, 709-713.	0.3	13
64	Fractal structure and features of energy-release (combustion) processes in heterogeneous condensed systems. Combustion, Explosion and Shock Waves, 1997, 33, 513-527.	0.3	10
65	Reaction-bonded titanium nitride ceramics. Journal of the European Ceramic Society, 1996, 16, 35-42.	2.8	9
66	Ignition and combustion of a high-temperature alloy in oxygen. Combustion, Explosion and Shock Waves, 1989, 24, 398-400.	0.3	0
67	Influence of the spatial structure of a reactive medium on heat liberation during formation of nickel and zirconium aluminide. Combustion, Explosion and Shock Waves, 1989, 24, 593-597.	0.3	3