

Mateusz Szala

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Sulfur-doped porous carbons: Synthesis and applications. <i>Carbon</i> , 2014, 68, 1-32.	5.4	537
2	Combustion Synthesis as a Novel Method for Production of 1-D SiC Nanostructures. <i>Journal of Physical Chemistry B</i> , 2005, 109, 16244-16251.	1.2	101
3	Electrochemical determination of nitroaromatic explosives at boron-doped diamond/graphene nanowall electrodes: 2,4,6-trinitrotoluene and 2,4,6-trinitroanisole in liquid effluents. <i>Journal of Hazardous Materials</i> , 2020, 387, 121672.	6.5	59
4	Adsorption of 2,4-dichlorophenol and 2,4-dichlorophenoxyacetic acid from aqueous solutions on carbonaceous materials obtained by combustion synthesis. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 63, 371-378.	2.7	53
5	Interaction of quaternary ammonium ionic liquids with bacterial membranes – Studies with <i>Escherichia coli</i> R1 and R4-type lipopolysaccharides. <i>Journal of Molecular Liquids</i> , 2017, 246, 282-289.	2.3	48
6	The microbial toxicity of quaternary ammonium ionic liquids is dependent on the type of lipopolysaccharide. <i>Journal of Molecular Liquids</i> , 2018, 266, 540-547.	2.3	45
7	Evaluation of selected SERS substrates for trace detection of explosive materials using portable Raman systems. <i>Vibrational Spectroscopy</i> , 2019, 100, 79-85.	1.2	43
8	Properties of Polyethylene Terephthalate (PET) after Thermo-Oxidative Aging. <i>Materials</i> , 2021, 14, 3833.	1.3	39
9	Effect of lateral fluorine substitution far from the chiral center on mesomorphic behaviour of highly titled antiferroelectric (S) and (R) enantiomers. <i>Journal of Molecular Liquids</i> , 2018, 267, 504-510.	2.3	37
10	Adsorption Studies of the Gram-Negative Bacteria onto Nanostructured Silicon Carbide. <i>Applied Biochemistry and Biotechnology</i> , 2015, 175, 1448-1459.	1.4	32
11	Characterization of prospective explosive materials using terahertz time-domain spectroscopy. <i>Applied Optics</i> , 2016, 55, 4575.	2.1	30
12	Structurally tailored carbon xerogels produced through a sol-gel process in a water-methanol-inorganic salt solution. <i>Journal of Sol-Gel Science and Technology</i> , 2011, 58, 102-113.	1.1	26
13	Sea-dumped ammunition as a possible source of mercury to the Baltic Sea sediments. <i>Science of the Total Environment</i> , 2019, 674, 363-373.	3.9	25
14	Combustion Reactions of Poly(Carbon Monofluoride), (CF) _n , with Different Reductants and Characterization of the Products. <i>Propellants, Explosives, Pyrotechnics</i> , 2007, 32, 149-154.	1.0	21
15	Synthesis and properties of ferro- and antiferroelectric esters with a chiral centre based on (S)-(+)-3-octanol. <i>Liquid Crystals</i> , 2019, 46, 299-308.	0.9	19
16	Effect of Titanium and Zirconium Hydrides on the Detonation Heat of RDX-based Explosives – A Comparison to Aluminium. <i>Propellants, Explosives, Pyrotechnics</i> , 2018, 43, 280-285.	1.0	18
17	Surface properties of carbons obtained from hexachlorobenzene and hexachloroethane by combustion synthesis. <i>Carbon</i> , 2007, 45, 103-109.	5.4	16
18	Modified Pechini synthesis of Bi ₂ ZnB ₂ O ₇ nanoparticles. <i>Journal of Alloys and Compounds</i> , 2017, 725, 587-597.	2.8	16

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19	2,4,6-Trinitrotoluene "A Useful Starting Compound in the Synthesis of Modern Energetic Compounds. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 262-269.	0.6	15
20	Analysis of samples of explosives excavated from the Baltic Sea floor. Science of the Total Environment, 2020, 708, 135198.	3.9	15
21	Toxicity assessment of SiC nanofibers and nanorods against bacteria. Ecotoxicology and Environmental Safety, 2014, 100, 287-293.	2.9	14
22	Synthesis of SiC/Ag/Cellulose Nanocomposite and Its Antibacterial Activity by Reactive Oxygen Species Generation. Nanomaterials, 2016, 6, 171.	1.9	14
23	Explosive Properties and Thermal Stability of Urea-Hydrogen Peroxide Adduct. Propellants, Explosives, Pyrotechnics, 2017, 42, 198-203.	1.0	14
24	Oxidative stress in bacteria (<i>Pseudomonas putida</i>) exposed to nanostructures of silicon carbide. Chemosphere, 2015, 135, 233-239.	4.2	13
25	Transmission and Reflection Terahertz Spectroscopy of Insensitive Melt-Cast High-Explosive Materials. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 977-992.	1.2	13
26	5,5,6,6-Tetranitro-2,2-bibenzimidazole: A Thermally Stable and Insensitive Energetic Compound. ChemPlusChem, 2018, 83, 87-91.	1.3	12
27	Quasi one-dimensional ceramic nanostructures spontaneously formed by combustion synthesis. Physica Status Solidi (B): Basic Research, 2006, 243, 3297-3300.	0.7	10
28	Origin of PYX thermal stability investigation with calorimetric and spectroscopic methods. Journal of Thermal Analysis and Calorimetry, 2017, 130, 2047-2054.	2.0	10
29	Microstructural and nonlinear optical properties of Bi ₂ ZnB ₂ O ₇ :RE ₃₊ powders. Journal of Alloys and Compounds, 2017, 694, 959-970.	2.8	10
30	Effect of Titanium and Zirconium Hydrides on the Parameters of Confined Explosions of RDX-Based Explosives "A Comparison to Aluminium. Propellants, Explosives, Pyrotechnics, 2018, 43, 1048-1055.	1.0	10
31	Interactions between bacteria and heteroatom-modified nanoporous carbon: The influence of nitrogen and sulfur doping. Carbon, 2018, 127, 479-490.	5.4	9
32	Studies on the thermal behaviour and safety of a novel thermostable explosive 5,5,6,6-tetranitro-2,2-bibenzimidazole. Thermochemica Acta, 2018, 668, 126-131.	1.2	9
33	Origin of microporosity in chalcogen-doped carbon materials: The case of selenium-doped carbogels. Microporous and Mesoporous Materials, 2018, 272, 260-264.	2.2	9
34	Synthesis and properties of antiferroelectric and/or ferroelectric compounds with the "CH ₂ O group close to chirality centre. Liquid Crystals, 2019, 46, 2245-2255.	0.9	9
35	Performance of Magnesium, Mg-Al Alloy and Silicon in Thermobaric Explosives "A Comparison to Aluminium. Propellants, Explosives, Pyrotechnics, 2020, 45, 1691-1697.	1.0	9
36	NTO-based Melt-cast Insensitive Compositions. Central European Journal of Energetic Materials, 2016, 13, 592-611.	0.5	8

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37	Studies of Confined Explosions of Composite Explosives and Layered Charges. Central European Journal of Energetic Materials, 2016, 13, 957-977.	0.5	8
38	The Multi-Gas Sensor for Remote UAV and UGV Missions – Development and Tests. Sensors, 2021, 21, 7608.	2.1	8
39	Self-sustaining high-temperature synthesis of carbon-encapsulated magnetic nanoparticles from organic and inorganic metal precursors. New Carbon Materials, 2010, 25, 81-88.	2.9	7
40	Influence of 1,2,4,5-tetrazine derivatives on growth of bacterial consortium isolated from soil. Chemistry and Ecology, 2011, 27, 57-68.	0.6	7
41	A Melt-Cast Composition Based on NTO and FOX-7. Central European Journal of Energetic Materials, 2016, 13, 882-902.	0.5	7
42	Combustion synthesis of hollow carbon fibers. International Journal of Self-Propagating High-Temperature Synthesis, 2008, 17, 106-111.	0.2	6
43	Synthesis, Structure, and Explosive Properties of a New Trinitrate Derivative of an Unexpected Condensation Product of Nitromethane with Glyoxal. Propellants, Explosives, Pyrotechnics, 2012, 37, 261-266.	1.0	6
44	NMR spectra of chiral smectic liquid crystals differing in helical parameters. Liquid Crystals, 2018, 45, 1385-1395.	0.9	6
45	Synclinc and anticlinic properties of (R,S) 4-(1-methylheptyloxycarbonyl)biphenyl-4-yl 4-[7-(2,2,3,3,4,4,4-heptafluorobutoxy)heptyl-1-oxy]benzoates. Phase Transitions, 2019, 92, 657-666.	0.6	6
46	Highly tilted antiferroelectric (R) enantiomers useful for the formulation of eutectic mixtures. Liquid Crystals, 2020, 47, 179-190.	0.9	6
47	Electrochemical Detection of 4,4',5,5'-Tetranitro-1H,1'H-2,2'-Biimidazole on Boron-Doped Diamond/Graphene Nanowall Electrodes. IEEE Sensors Journal, 2020, 20, 9637-9643.	2.4	6
48	Explosive Properties of 4,4',5,5'-Tetranitro-2,2'-bi-1H-imidazole Dihydrate. Central European Journal of Energetic Materials, 2016, 13, 612-626.	0.5	6
49	Conductive printable electrodes tuned by boron-doped nanodiamond foil additives for nitroexplosive detection. Mikrochimica Acta, 2022, 189, .	2.5	6
50	Study of the Heat and Kinetics of Nitration of 1,2,4-Triazol-5-one (TO). Propellants, Explosives, Pyrotechnics, 2015, 40, 498-505.	1.0	5
51	Synthesis and Properties of 4,4',5,5'-Tetranitro-1H,1'H-2,2'-Biimidazole Salts: Semicarbazidium, 3-Amino-1,2,4-Triazolium, and 5-Aminotetrazolium Derivatives. Chemistry of Heterocyclic Compounds, 2017, 53, 697-701.	0.6	5
52	Polymer-bonded secondary explosives. Materiały Wysokoenergetyczne / High Energy Materials, 2021, , 5-16.	0.2	5
53	Synthesis of Carbon Fibers by Combustion Route. Fullerenes Nanotubes and Carbon Nanostructures, 2013, 21, 879-887.	1.0	4
54	Preliminary Study of New Propellants Containing Guanidinium or Triaminoguanidinium Azotetrazolate. Propellants, Explosives, Pyrotechnics, 2017, 42, 1278-1282.	1.0	4

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55	Synthesis and Energetic Properties of Imidazolium and 2-Methylimidazolium Salts of 3-Nitro-1,2,4-Triazol-5-One. Propellants, Explosives, Pyrotechnics, 2017, 42, 1027-1031.	1.0	3
56	Development of analytical methods used for the study of 2,4,6-trinitrotoluene degradation kinetics in simulated sediment samples from the Baltic Sea. Marine Pollution Bulletin, 2018, 135, 397-410.	2.3	3
57	Interactions of Fe ²⁺ /Ni ²⁺ /S Co-Doped Porous Carbons with Bacteria: Sorption Effect and Enzyme-Like Properties. Materials, 2020, 13, 3707.	1.3	3
58	Interaction of Gram-Positive and Gram-Negative Bacteria with Ceramic Nanomaterials Obtained by Combustion Synthesis – Adsorption and Cytotoxicity Studies. Polish Journal of Microbiology, 2016, 65, 161-170.	0.6	3
59	Adsorption studies of azotetrazolate and 3,6-dihydrazinotetrazine on peat. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2013, 48, 905-911.	0.9	2
60	Synthesis and Energetic Properties of 1,3,7,9-tetra- <i>n</i> -butyl-2,4,6-trinitrobenzo[<i>c</i>]Cinnoline-5-oxide (TNBCO). Propellants, Explosives, Pyrotechnics, 2019, 44, 1509-1514.	1.0	2
61	Chromatographic determination of the free energy of adsorption and absorption characteristic of 4-(trans-4- <i>n</i> -alkylcyclohexyl) benzoates. Journal of Chromatography A, 2020, 1622, 461120.	1.8	2
62	New energetic materials derived from common explosives. Review. Materiały Wysokoenergetyczne / High Energy Materials, 2020, , 90-110.	0.2	2
63	Thermochemical Properties, Ballistic Parameters and Sensitivity of New RDX-based Propellants. Central European Journal of Energetic Materials, 2020, 17, 223-238.	0.5	2
64	Hexachloroethane as an efficient oxidizer in combustion synthesis of carbonaceous and ceramic nanostructures. International Journal of Self-Propagating High-Temperature Synthesis, 2010, 19, 28-33.	0.2	1
65	Toxic effect assessment of aminotetrazoles and high-energetic azotetrazole salts on soil microbial respiration. Chemistry and Ecology, 2014, 30, 339-349.	0.6	1
66	Structure and sorption properties of multifunctional acrylic polymers designed for solid phase microextraction fibers. Polymer, 2020, 190, 122191.	1.8	1
67	¹ H, ¹³ C and ¹⁵ N Nuclear Magnetic Resonance Analysis of 3,3- TM ,4,4- TM -Diaminoazoxyfurazan Obtained by Oxidation of 3,4-Diaminofurazan with Peroxyformic Acid. Central European Journal of Energetic Materials, 2016, 13, 349-356.	0.5	1
68	Development trends in artillery ammunition propellants. Materiały Wysokoenergetyczne / High Energy Materials, 2020, , 5-16.	0.2	1
69	Combustion Synthesis as a Novel Method for Production of 1-D SiC Nanostructures.. ChemInform, 2005, 36, no.	0.1	0
70	Synthesis of nitrogen-rich compounds and their use in novel composite propellants. , 2020, , .		0
71	Preparation and investigation of the properties of hexanitrohexaazatricyclododecanidione (HHTDD). Materiały Wysokoenergetyczne / High Energy Materials, 2019, , 88-94.	0.2	0
72	Fluorophenol-Containing Hydrogen-Bond Acidic Polysiloxane for Gas Sensing-Synthesis and Characterization. Polymers, 2022, 14, 1147.	2.0	0