Igor Batraev

List of Publications by Year in descending order

59 papers	545 citations	687363 13 h-index	794594 19 g-index
59 all docs	59 docs citations	59 times ranked	259 citing authors

#	Article	IF	Citations
1	Structural Features and Corrosion Resistance of Fe66Cr10Nb5B19 Metallic Glass Coatings Obtained by Detonation Spraying. Journal of Materials Engineering and Performance, 2022, 31, 622-630.	2.5	5
2	Wear-Resistant Fe-Based Metallic Glass-Al2O3 Composite Coatings Produced by Detonation Spraying. Journal of Thermal Spray Technology, 2022, 31, 1355-1365.	3.1	8
3	Wear Resistance of Detonation Coatings with Amorphous Structure Under Conditions of Friction Against Nonrigidly Fixed Abrasive Particles. Metal Science and Heat Treatment, 2022, 63, 463-469.	0.6	0
4	FeCoNiCu Alloys Obtained by Detonation Spraying and Spark Plasma Sintering of High-Energy Ball-Milled Powders. Journal of Thermal Spray Technology, 2022, 31, 1067-1075.	3.1	4
5	Production of hydrogen and carbon black by detonation of fuel-rich acetylene-oxygen mixtures. International Journal of Hydrogen Energy, 2022, 47, 14039-14043.	7.1	5
6	An Experimental and Numerical Simulation Study of Single Particle Impact during Detonation Spraying. Metals, 2022, 12, 1013.	2.3	1
7	A Feasibility Study of High-Entropy Alloy Coating Deposition by Detonation Spraying Combined with Laser Melting. Materials, 2022, 15, 4532.	2.9	8
8	Interaction between Fe66Cr10Nb5B19 metallic glass and aluminum during spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 799, 140165.	5.6	21
9	Detonation Parameters of Mixtures Produced by Injecting Gaseous Components into the Barrel of a Pulse Gas Detonation Installation. Combustion, Explosion and Shock Waves, 2021, 57, 23-29.	0.8	1
10	Deposition of tungsten coatings by detonation spraying. Surface and Coatings Technology, 2021, 409, 126943.	4.8	13
11	Processing of Fe-Based Alloys by Detonation Spraying and Spark Plasma Sintering. Journal of Thermal Spray Technology, 2021, 30, 1692-1702.	3.1	5
12	Detonation Spraying of Hydroxyapatite on a Titanium Alloy Implant. Materials, 2021, 14, 4852.	2.9	9
13	Microstructure and Mechanical Properties of Composites Obtained by Spark Plasma Sintering of Alâ€“Fe66Cr10Nb5B19 Metallic Glass Powder Mixtures. Metals, 2021, 11, 1457.	2.3	8
14	Analysis of material flow fields under explosive collapse of two-layer metal/ceramic tubes. International Journal of Impact Engineering, 2021, 156, 103929.	5.0	2
15	Acceleration of Dispersed Particles by Gas Detonation Productions in an Expanding Channel. Combustion, Explosion and Shock Waves, 2021, 57, 588-596.	0.8	4
16	Metalâ€“Nanocarbon Composite Coatings Produced by Detonation Spraying with In Situ Carbon Generation. Journal of Thermal Spray Technology, 2021, 30, 1837-1849.	3.1	3
17	Mechanical and tribological properties of cold sprayed composite Al-B4C coatings. AIP Conference Proceedings, 2021, , .	0.4	6
18	Detonation spraying of Ti-Cu mixtures in different atmospheres: Carbon, nitrogen and oxygen uptake by the powders. Surfaces and Interfaces, 2020, 21, 100676.	3.0	8

#	Article	IF	Citations
19	Detonation of Ethyleneâ€“ and Propyleneâ€“Oxygen Explosive Mixtures and Their Use in Detonation Spraying Technology. Combustion, Explosion and Shock Waves, 2020, 56, 353-360.	0.8	3
20	The influence of the O2/C2H2 ratio on the structure and properties of Fe66Cr10Nb5B19 detonation coatings. Materials Today: Proceedings, 2020, 25, 384-386.	1.8	9
21	DETONATION SPRAYING OF COPPER PRETREATED WITH HIGH-ENERGY IMPACTS. Journal of Applied Mechanics and Technical Physics, 2020, 61, 1042-1047.	0.5	4
22	The Influence of Salt fog Exposure on Corrosion Resistance of Detonation Coatings Fe66Cr10Nb5B19. Metal Working and Material Science, 2020, 22, 95-105.	0.3	4
23	Formation of Metallic Glass Coatings by Detonation Spraying of a Fe66Cr10Nb5B19 Powder. Metals, 2019, 9, 846.	2.3	16
24	Effect of the Microstructure of Cermet Powders on the Performance Characteristics of Thermal Spray Coatings. Journal of Surface Investigation, 2019, 13, 628-634.	0.5	4
25	Hardness of promising intermetallics obtained by the solid-state reaction of refractory carbides with iridium. Ceramics International, 2019, 45, 2684-2688.	4.8	6
26	Gas Jet Deposition of Diamond onto a Steel Surface Covered by a Tungsten Carbide or Molybdenum Layer. Journal of Applied Mechanics and Technical Physics, 2019, 60, 1077-1087.	0.5	1
27	Formation of TiC-Cu nanocomposites by a reaction between Ti25Cu75 melt-spun alloy and carbon. Materials Letters, 2019, 235, 104-106.	2.6	14
28	Synthesis of nickel boride by thermal explosion in ball-milled powder mixtures. Journal of Materials Science, 2018, 53, 13592-13599.	3.7	10
29	Generation of Hypervelocity Particle Flows by Explosive Compression of Ceramic Tubes. Combustion, Explosion and Shock Waves, 2018, 54, 119-124.	0.8	5
30	Basic properties of cold sprayed titanium â€“ ceramics coatings. AIP Conference Proceedings, 2018, , .	0.4	2
31	Detonation spraying behaviour of refractory metals: Case studies for Mo and Ta-based powders. Advanced Powder Technology, 2018, 29, 1859-1864.	4.1	35
32	Production of Nanoscale Detonation Carbon using a Pulse Gas-Detonation Device. Technical Physics Letters, 2018, 44, 395-397.	0.7	16
33	Microstructure and Wear Resistance of Detonation Coatings Obtained from Titanium Carbideâ€“Nichrome SHS Powders Having Different Particle Sizes. Journal of Surface Investigation, 2018, 12, 240-246.	0.5	2
34	Investigation of Gas Detonation in Over-Rich Mixtures of Hydrocarbons with Oxygen. Combustion, Explosion and Shock Waves, 2018, 54, 207-215.	0.8	22
35	Electrical Insulation Properties of Aluminum Oxide Detonation Coatings. Metal Working and Material Science, 2018, 20, 83-95.	0.3	3
36	Deposition of titanium based coatings by reactive detonation spraying. Koroze A Ochrana Materialu, 2018, 62, 6-13.	0.7	4

#	Article	IF	Citations
37	The design of zirconium and hafnium germanate interphase in SiC f /SiC composites. Ceramics International, 2017, 43, 4166-4174.	4.8	7
38	Enhancing the properties of WC/Co detonation coatings using two-component fuels. Surface and Coatings Technology, 2017, 318, 244-249.	4.8	27
39	Detonation spraying of copper: theoretical analysis and experimental studies. Materials Today: Proceedings, 2017, 4, 11346-11350.	1.8	12
40	Mechanical Characterization of Composite Coatings Formed by Reactive Detonation Spraying of Titanium. Metals, 2017, 7, 355.	2.3	3
41	Structure and Properties of Coatings Formed by Detonation Spraying of Titanium Powder. IOP Conference Series: Materials Science and Engineering, 2017, 286, 012025.	0.6	0
42	Effect of the microstructure of SHS powders of titanium carbideâ€“nichrome on the properties of detonation coatings. Journal of Surface Investigation, 2016, 10, 1040-1047.	0.5	12
43	Structural and mechanical characterization of detonation coatings formed by reaction products of titanium with components of the spraying atmosphere. AIP Conference Proceedings, 2016, , .	0.4	0
44	The influence of the in-situ formed and added carbon on the formation of metastable Ni-based phases during detonation spraying. Materials Letters, 2016, 181, 127-131.	2.6	20
45	Reactivity of materials towards carbon of graphite foil during Spark Plasma Sintering: A case study using Niâ€“W powders. Materials Letters, 2016, 168, 62-67.	2.6	22
46	Detonation spraying behavior of TiCxâ€“Ti powders and the role of reactive processes in the coating formation. Ceramics International, 2016, 42, 690-696.	4.8	18
47	Detonation of a gas fuel based on methyl acetylene and allene. Combustion, Explosion and Shock Waves, 2015, 51, 246-251.	0.8	7
48	Detonation spraying of titanium and formation of coatings with spraying atmosphere-dependent phase composition. Surface and Coatings Technology, 2015, 261, 174-180.	4.8	27
49	Detonation Spraying of Tiâ€“Al Intermetallics: Phase and Microstructure Development of the Coatings. Materials and Manufacturing Processes, 2015, 30, 724-729.	4.7	13
50	Carbon uptake during Spark Plasma Sintering: investigation through the analysis of the carbide â€œfootprintâ€•in a Niâ€“W alloy. RSC Advances, 2015, 5, 80228-80237.	3.6	42
51	Diagnostics of the structure and composition of ultrafine carbon obtained by detonation. Journal of Structural Chemistry, 2014, 55, 986-989.	1.0	8
52	In situ formation of metal-ceramic composite coatings by detonation spraying of titanium. , 2014, , .		1
53	In-water gas combustion in linear and annular gas bubbles. Thermophysics and Aeromechanics, 2014, 21, 479-488.	0.5	7
54	Formation Routes of Nanocomposite Coatings in Detonation Spraying of Ti3SiC2-Cu Powders. Journal of Thermal Spray Technology, 2014, 23, 1116-1123.	3.1	3

#	Article	IF	Citations
55	Control of interfacial interaction during detonation spraying of Ti3SiC2-Cu composites. Inorganic Materials, 2014, 50, 35-39.	0.8	8
56	Acceleration and heating of powder particle by gas detonation products in channels with a conical passage. Combustion, Explosion and Shock Waves, 2014, 50, 315-322.	0.8	10
57	Possibilities of the Computer-Controlled Detonation Spraying method: A chemistry viewpoint. Ceramics International, 2014, 40, 3253-3260.	4.8	26
58	Properties of Alumina Coatings Deposited by Detonation Spraying. Materials Science Forum, 0, 1016, 1350-1355.	0.3	1
59	Detonation Spraying of Metal Carbides Composites. Materials Science Forum, 0, 1016, 88-93.	0.3	0