Radek Musalek

List of Publications by Year
in descending order

56 papers	653 citations	516710 16 h-index	677142 22 g-index
56 all docs	56 docs citations	56 times ranked	616 citing authors

#	Article	IF	Citations
1	Non-Linear Mechanical Behavior of Plasma Sprayed Alumina Under Mechanical and Thermal Loading. Journal of Thermal Spray Technology, 2010, 19, 422-428.	3.1	50
2	Development of suspension plasma sprayed alumina coatings with high enthalpy plasma torch. Surface and Coatings Technology, 2017, 325, 277-288.	4.8	31
3	The Influence of Interface Characteristics on the Adhesion/Cohesion of Plasma Sprayed Tungsten Coatings. Coatings, 2013, 3, 108-125.	2.6	28
4	Evaluating the toughness of APS and HVOF-sprayed Al2O3-ZrO2-coatings by in-situ- and macroscopic bending. Journal of the European Ceramic Society, 2018, 38, 1908-1918.	5.7	28
5	On the dielectric strengths of atmospheric plasma sprayed Al2O3, Y2O3, ZrO2â€“7% Y2O3 and (Ba,Sr)TiO3 coatings. Ceramics International, 2015, 41, 11169-11176.	4.8	27
6	Spark plasma sintering of gas atomized high-entropy alloy HfNbTaTiZr. Journal of Materials Research, 2018, 33, 3247-3257.	2.6	26
7	The Role of Spraying Parameters and Inert Gas Shrouding in Hybrid Water-Argon Plasma Spraying of Tungsten and Copper for Nuclear Fusion Applications. Journal of Thermal Spray Technology, 2013, 22, 744-755.	3.1	25
8	A contribution to understanding the results of instrumented indentation on thermal spray coatings â€” Case study on Al2O3 and stainless steel. Surface and Coatings Technology, 2014, 240, 243-249.	4.8	25
9	The microstructural studies of suspension plasma sprayed zirconia coatings with the use of high-energy plasma torches. Surface and Coatings Technology, 2017, 318, 250-261.	4.8	22
10	In-situ observation of crack propagation in thermally sprayed coatings. Surface and Coatings Technology, 2010, 205, 1807-1811.	4.8	21
11	Fatigue properties of Feâ€“Al intermetallic coatings prepared by plasma spraying. Intermetallics, 2010, 18, 1415-1418.	3.9	21
12	Metal matrix to ceramic matrix transition via feedstock processing of SPS titanium composites alloyed with high silicone content. Journal of Alloys and Compounds, 2018, 764, 776-788.	5.5	20
13	Post-treatment of Plasma-Sprayed Amorphous Ceramic Coatings by Spark Plasma Sintering. Journal of Thermal Spray Technology, 2015, 24, 637-643.	3.1	19
14	Application of resonant ultrasound spectroscopy to determine elastic constants of plasma-sprayed coatings with high internal friction. Surface and Coatings Technology, 2013, 232, 747-757.	4.8	18
15	Thermophysical properties of YSZ and YCeSZ suspension plasma sprayed coatings having different microstructures. Surface and Coatings Technology, 2017, 318, 28-38.	4.8	17
16	Influence of processing conditions on the microstructure and sliding wear of a promising Fe-based coating deposited by HVAF. Surface and Coatings Technology, 2021, 409, 126953.	4.8	17
17	Application of Structure-Based Models of Mechanical and Thermal Properties on Plasma Sprayed Coatings. Journal of Thermal Spray Technology, 2012, 21, 372-382.	3.1	16
18	Metallurgical bond between magnesium AZ91 alloy and aluminium plasma sprayed coatings. Surface and Coatings Technology, 2015, 282, 163-170.	4.8	16

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19	Controlling Microstructure of Yttria-Stabilized Zirconia Prepared from Suspensions and Solutions by Plasma Spraying with High Feed Rates. Journal of Thermal Spray Technology, 2017, 26, 1787-1803.	3.1	15
20	Photocatalytic activity of visible-light-active iron-doped coatings prepared by plasma spraying. Ceramics International, 2014, 40, 2365-2372.	4.8	14
21	Feasibility of suspension spraying of yttria-stabilized zirconia with water-stabilized plasma torch. Surface and Coatings Technology, 2015, 268, 58-62.	4.8	14
22	Resonance bending fatigue testing with simultaneous damping measurement and its application on layered coatings. International Journal of Fatigue, 2016, 82, 300-309.	5.7	12
23	Suspensions Plasma Spraying of Ceramics with Hybrid Water-Stabilized Plasma Technology. Journal of Thermal Spray Technology, 2017, 26, 37-46.	3.1	12
24	On the relation between microstructure and elastic constants of tungsten/steel composites fabricated by spark plasma sintering. Fusion Engineering and Design, 2018, 133, 51-58.	1.9	12
25	The Role of Laser Texturing in Improving the Adhesion of Plasma Sprayed Tungsten Coatings. Journal of Thermal Spray Technology, 2019, 28, 1346-1362.	3.1	12
26	On growth of suspension plasma-sprayed coatings deposited by high-enthalpy plasma torch. Surface and Coatings Technology, 2019, 371, 333-343.	4.8	11
27	Increasing Î±-phase content of alumina-chromia coatings deposited by suspension plasma spraying using hybrid and intermixed concepts. Surface and Coatings Technology, 2019, 371, 298-311.	4.8	11
28	Sliding wear behavior of a sustainable Fe-based coating and its damage mechanisms. Wear, 2022, 500-501, 204375.	3.1	9
29	Materials and processing factors influencing stress evolution and mechanical properties of plasma sprayed coatings. Surface and Coatings Technology, 2019, 371, 3-13.	4.8	8
30	Microstructures and Thermal Cycling Properties of Thermal Barrier Coatings Deposited by Hybrid Water-Stabilized Plasma Torch. Journal of Thermal Spray Technology, 2020, 29, 444-461.	3.1	8
31	Multiple-Approach Evaluation of WSP Coatings Adhesion/Cohesion Strength. Journal of Thermal Spray Technology, 2013, 22, 221-232.	3.1	7
32	Fatigue Testing of TBC on Structural Steel by Cyclic Bending. Journal of Thermal Spray Technology, 2014, 24, 168.	3.1	7
33	Improvement of Mechanical Properties of Plasma Sprayed Al2O3-ZrO2-SiO2 Amorphous Coatings by Surface Crystallization. Materials, 2019, 12, 3232.	2.9	7
34	Microstructure and failure analysis of suspension plasma sprayed thermal barrier coatings. Surface and Coatings Technology, 2020, 382, 125218.	4.8	7
35	Mechanical and magnetic properties of semi-Heusler/light-metal composites consolidated by spark plasma sintering. Materials and Design, 2017, 126, 351-357.	7.0	6
36	High-Temperature Cycling of Plasma Sprayed Multilayered NiCrAlY/YSZ/GZO/YAG Thermal Barrier Coatings Prepared from Liquid Feedstocks. Journal of Thermal Spray Technology, 2021, 30, 81-96.	3.1	6

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37	On reactive suspension plasma spraying of calcium titanate. Ceramics International, 2016, 42, 4607-4615.	4.8	5
38	Fatigue Performance of TBCs on Hastelloy X Substrate During Cyclic Bending. Journal of Thermal Spray Technology, 2016, 25, 231-243.	3.1	5
39	Residual Stresses and Young's Moduli of Plasma Sprayed W+Cu Composites and FGMs Determined by <i>In Situ</i> Curvature Method. Key Engineering Materials, 0, 606, 151-154.	0.4	4
40	Recent results and challenges in development of metallic Hall sensors for fusion reactors. AIP Conference Proceedings, 2014, , .	0.4	4
41	Evaluation of Failure Micromechanisms of Advanced Thermal Spray Coatings by In Situ Experiment. Key Engineering Materials, 2014, 606, 187-190.	0.4	3
42	Structural characterization of semi-heusler/light metal composites prepared by spark plasma sintering. Scientific Reports, 2018, 8, 11133.	3.3	3
43	Structure and electrical properties of yttrium oxide sprayed by plasma torches from powders and suspensions. Ceramics International, 2022, 48, 7464-7474.	4.8	3
44	Cohesion of Dissimilar Splats in Hybrid Plasma-Sprayed Coatings: A Case Study for Al2O3-TiO2. Journal of Thermal Spray Technology, 2022, 31, 1869-1888.	3.1	3
45	Al₂O₃-TiO₂ coatings deposition by intermixed and double injection SPS concepts. Materials Science-Poland, 2021, 39, 599-614.	1.0	3
46	Real Structure of Milled Inconel 738LC Turbine Blades. Advanced Materials Research, 0, 996, 646-651.	0.3	2
47	Effect of Boriding Time on Microstructure and Residual Stresses in Borided Highly Alloyed X210CR12 Steel. Key Engineering Materials, 0, 606, 27-30.	0.4	2
48	Study of residual stresses, microstructure, and hardness in FeB and Fe₂B ultra-hard layers. Powder Diffraction, 2015, 30, S83-S89.	0.2	2
49	Defects in the high entropy alloy HfNbTaTiZr prepared by spark plasma sintering. AIP Conference Proceedings, 2019, , .	0.4	2
50	Solution Precursor Plasma Spraying of Cr-Doped Al2O3 Thermochromic Coatings. Journal of Thermal Spray Technology, 2020, 29, 199-211.	3.1	2
51	HVOF Sprayed Fe-Based Wear-Resistant Coatings with Carbide Reinforcement, Synthesized In Situ and by Mechanically Activated Synthesis. Coatings, 2020, 10, 1092.	2.6	2
52	Influence of Preheating Temperature on the Quality of the Interface between Plasma Sprayed Coatings and Substrate. Key Engineering Materials, 0, 606, 183-186.	0.4	1
53	High temperature corrosion studies of HVOF sprayed coatings in molten sulphate salts environment. , 2019, , .		1
54	EVALUATION OF INTERNAL COHESION OF MULTIPHASE PLASMA-SPRAYED COATINGS BY CAVITATION TEST: FEASIBILITY STUDY. Acta Polytechnica CTU Proceedings, 0, 27, 73-78.	0.3	1

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55	Combined Indentation Testing of Spark Plasma Sintered Steels. Key Engineering Materials, 2015, 662, 43-46.	0.4	0
56	Application of Laser-Ultrasound for Characterization of Plasma-Sprayed Ceramics. Defect and Diffusion Forum, 2016, 368, 69-72.	0.4	0