Pavol Hvizdos

List of Publications by Year
in descending order

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122	1,857	279798 23	302126 39
papers	citations	h-index	g-index

128	128	128	1655
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of ZrC nanopowder addition in WC preforms on microstructure and properties of Wâ€“ZrC composites prepared by the displacive compensation of porosity (DCP) method. Journal of the Australian Ceramic Society, 2021, 57, 515-523.	1.9	3
2	Ceramic Matrix Composites With Carbon Nanophases: Development, Structure, Mechanical and Tribological Properties and Electrical Conductivity. , 2021, , 116-133.		4
3	Influence of the frequency and flow rate of a pulsating water jet on the wear damage of tantalum. Wear, 2021, 477, 203893.	3.1	17
4	Rotary friction welded C45 to 16NiCr6 steel rods: statistical optimization coupled to mechanical and microstructure approaches. International Journal of Advanced Manufacturing Technology, 2021, 116, 2285-2298.	3.0	15
5	Surface Topography Analysis of Mg-Based Composites with Different Nanoparticle Contents Disintegrated Using Abrasive Water Jet. Materials, 2021, 14, 5471.	2.9	5
6	Effect of Post Weld Heat Treatment on Microstructure and Mechanical Behaviors of Weld Overlay Inconel 182 on 4130 Steel Substrate Using SMAW Process. Metallography, Microstructure, and Analysis, 2021, 10, 567-578.	1.0	1
7	Effect of WC-Co cermet positioning and NiCr interlayer on the microstructure and mechanical response of the dissimilar WC-Co / AISI 304ÂL rotary friction joint. International Journal of Refractory Metals and Hard Materials, 2021, 101, 105653.	3.8	7
8	Wear and Erosion Resistant Ceramic Materials. , 2021, , 416-424.		2
9	Application of the statistical Taguchi method to optimize the properties of WC preforms to produce W-ZrC composites using reactive infiltration by molten Zr2 Cu. International Journal of Modern Physics B, 2020, 34, 2050233.	2.0	0
10	A Taguchi approach to the influence of infiltration parameters on microstructure and properties of Wâ€“ZrC composites prepared by the displacive compensation of porosity (DCP) method. Composites Communications, 2020, 20, 100356.	6.3	5
11	Effect of pulsating water jet disintegration on hardness and elasticity modulus of austenitic stainless steel AISI 304L. International Journal of Advanced Manufacturing Technology, 2020, 107, 2719-2730.	3.0	6
12	Influence of secondary phases in A356 MMCs on their mechanical properties at macro- and nanoscale. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	6
13	Microstructure, fracture behaviour and mechanical properties of conductive alumina based composites manufactured by SPS from graphenated Al2O3 powders. Journal of the European Ceramic Society, 2020, 40, 4818-4824.	5.7	16
14	Preparation, friction, wear, and fracture of the Si3N4-Ag-GNPs composites prepared by SPS. Journal of the European Ceramic Society, 2020, 40, 4853-4859.	5.7	17
15	Mechanical and tribological properties of TiB2-Ti composites prepared by spark plasma sintering. Metallic Materials, 2020, 57, 435-442.	0.3	1
16	Microstructure and tribological behavior of SPS processed Fe/Ti-15wt.%Cu-based metal matrix composites with incorporated waste Ti-chips. Metallic Materials, 2020, 58, 83-91.	0.3	0
17	Microstructure and mechanical behavior of dissimilar AISI 304L/WC-Co cermet rotary friction welds. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 758, 36-46.	5.6	28
18	Small-Scale Mechanical Testing of Cemented Carbides from the Micro- to the Nano-Level: A Review. Metals, 2019, 9, 502.	2.3	18

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19	Mechanical, physical properties and tribological behaviour of silicon carbide composites with addition of carbon nanotubes. International Journal of Refractory Metals and Hard Materials, 2019, 81, 272-280.	3.8	16
20	Study of Ni₆₃-Co₃₇nanocrystalline electrodeposited alloy as anti-wear coating on mild steel substrate. Materials Research Express, 2019, 6, 126557.	1.6	1
21	Investigation of WC decarburization effect on the microstructure and wear behavior of WC-Ni hardfacing under dry and alkaline wet conditions. Materials Chemistry and Physics, 2018, 208, 237-247.	4.0	26
22	Ultrasonically generated pulsed water jet peening of austenitic stainless-steel surfaces. Journal of Manufacturing Processes, 2018, 32, 455-468.	5.9	66
23	Surface integrity of Mg-based nanocomposite produced by Abrasive Water Jet Machining (AWJM). Materials and Manufacturing Processes, 2017, 32, 1707-1714.	4.7	28
24	Mechanical and tribological properties of electrically conductive SiC based cermets. International Journal of Refractory Metals and Hard Materials, 2017, 65, 76-82.	3.8	8
25	Fractography of Advanced Ceramics V â€œFractography from MACRO- to NANO-scaleâ€• Journal of the European Ceramic Society, 2017, 37, 4241-4242.	5.7	1
26	Microstructure, fracture, electrical properties and machinability of SiC-TiNbC composites. Journal of the European Ceramic Society, 2017, 37, 4315-4322.	5.7	8
27	Wear damage of TiTaCN-Co cermets at room and elevated temperatures. Procedia Structural Integrity, 2017, 5, 1385-1392.	0.8	2
28	Comparison of the influence of acoustically enhanced pulsating water jet on selected surface integrity characteristics of CW004A copper and CW614N brass. Measurement: Journal of the International Measurement Confederation, 2017, 110, 230-238.	5.0	34
29	Effect of brazing current on microstructure and mechanical behavior of WC-Co/AISI 1020 steel TIG brazed joint. International Journal of Refractory Metals and Hard Materials, 2017, 64, 210-218.	3.8	34
30	The Study of Selected Properties of Ti EB PVD Coating Deposited Onto Inner Tube Surface at Low Temperature. Archives of Metallurgy and Materials, 2016, 61, 67-74.	0.6	3
31	TiTaCN-Co Cermets Prepared by Mechanochemical Technique: Microstructure and Mechanical Properties. Procedia Engineering, 2016, 149, 87-93.	1.2	0
32	Surface Integrity Evaluation of Brass CW614N after Impact of Acoustically Excited Pulsating Water Jet. Procedia Engineering, 2016, 149, 236-244.	1.2	13
33	Effect of Fiber Laser Treating on Magnetic Domains in the Grain-Oriented Silicon Steel: Imaging Domains by Bitter, MFM and Kerr Microscopy. High Temperature Materials and Processes, 2016, 35, 739-744.	1.4	4
34	Tribological behaviour and local mechanical properties of magnesium-alumina composites. Metallic Materials, 2016, 52, 313-319.	0.3	2
35	Structural and nanomechanical properties of solâ€“gel prepared (K, Na)NbO₃ thin films. Surface and Interface Analysis, 2015, 47, 1063-1071.	1.8	10
36	Sintered composite materials on the basis of Fe/FePO4-coated powders. Surface and Interface Analysis, 2015, 47, 350-356.	1.8	4

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37	Tribological behaviour and mechanical properties of copper and magnesium based composites treated by severe plastic deformation. International Journal of Materials and Product Technology, 2015, 50, 80.	0.2	3
38	Experimental in-vitro bone cements disintegration with ultrasonic pulsating water jet for revision arthroplasty. Tehnicki Vjesnik, 2015, 22, .	0.2	5
39	Creep Behaviour and Fracture Analysis of MoSi2 Based Composites. High Temperature Materials and Processes, 2015, 34, .	1.4	2
40	Nanoindentation of (Ti,Ta)(C,N)â€“Co cermets prepared by methods of mechanochemistry. International Journal of Refractory Metals and Hard Materials, 2015, 49, 219-224.	3.8	3
41	Structural and mechanical properties of solâ€“gel prepared pyrochlore lanthanum niobates. Journal of Materials Science, 2015, 50, 7197-7207.	3.7	7
42	Development of Cold-Rolled Dual-Phase Steels with Tensile Strength Above 1000ÂMPa and Good Bendability. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4755-4771.	2.2	9
43	Orientation-dependent hardness and nanoindentation-induced deformation mechanisms of WC crystals. Acta Materialia, 2015, 83, 397-407.	7.9	107
44	Indentation hardness and fatigue of the constituents of WCâ€“Co composites. International Journal of Refractory Metals and Hard Materials, 2015, 49, 178-183.	3.8	19
45	Thermal manifestations and nanoindentation of bone cements for orthopaedic surgery. Thermal Science, 2014, 18, 251-258.	1.1	3
46	Multicomponent Thin Films Deposited by PVD ARC and LARC Technology. Medziagotyra, 2014, 20, .	0.2	2
47	Indentation fatigue of WC grains in WCâ€“Co composite. Journal of the European Ceramic Society, 2014, 34, 3407-3412.	5.7	32
48	Effect of solvent on phase composition and particle morphology of lanthanum niobates prepared by polymeric complex solâ€“gel method. Journal of Sol-Gel Science and Technology, 2014, 69, 272-280.	2.4	13
49	Effect of tantalum content on the microstructure and mechanical behavior of cermets based on (TixTa1â^'x)(C0.5N0.5) solid solutions. Materials & Design, 2014, 53, 435-444.	5.1	33
50	Structural properties and phase transformation of solâ€“gel prepared lanthanum tantalates. Journal of Materials Science, 2014, 49, 8423-8435.	3.7	12
51	Wear damage of Si3N4-graphene nanocomposites at room and elevated temperatures. Journal of the European Ceramic Society, 2014, 34, 3309-3317.	5.7	42
52	Influence of hBN content on mechanical and tribological properties of Si3N4/BN ceramic composites. Journal of the European Ceramic Society, 2014, 34, 3319-3328.	5.7	60
53	Coating Surface Roughness Measurement Made On Coining Dies. Manufacturing Technology, 2014, 14, 309-317.	1.4	11
54	Indentation fatigue of WCâ€“Co cemented carbides. International Journal of Refractory Metals and Hard Materials, 2013, 41, 229-235.	3.8	26

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55	Tribological properties of Si3N4â€“graphene nanocomposites. Journal of the European Ceramic Society, 2013, 33, 2359-2364.	5.7	125
56	Failure analysis of overhead power line yoke connector. Engineering Failure Analysis, 2013, 33, 66-74.	4.0	8
57	Wear resistance of Al2O3â€“CNT ceramic nanocomposites at room and high temperatures. Ceramics International, 2013, 39, 5821-5826.	4.8	80
58	Effect of substrate on microstructure and mechanical properties of solâ€“gel prepared (K, Na)NbO3 thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 254-262.	3.5	19
59	Nanoindentation of WCâ€“Co hardmetals. Journal of the European Ceramic Society, 2013, 33, 2227-2232.	5.7	66
60	Tribological Characteristics of Copper Based Composites with Al2O3 Particles at Various Temperatures. High Temperature Materials and Processes, 2013, 32, 437-442.	1.4	0
61	Plasma nitriding and its influence on contact fatigue of sintered steel. Metallic Materials, 2013, 50, 365-371.	0.3	0
62	The effect of surface pre-treatment and coating post-treatment to the properties of TiN coatings. Estonian Journal of Engineering, 2012, 18, 185.	0.4	12
63	Tribological Parameters of Copper-Alumina Composite. Key Engineering Materials, 2012, 527, 191-196.	0.4	1
64	Investigation of thin layers deposited by two PVD techniques on high speed steel produced by powder metallurgy. Applied Surface Science, 2012, 258, 5105-5110.	6.1	17
65	Tribological and electrical properties of ceramic matrix composites with carbon nanotubes. Ceramics International, 2012, 38, 5669-5676.	4.8	52
66	Fracture toughness and toughening mechanisms in graphene platelet reinforced Si3N4 composites. Scripta Materialia, 2012, 66, 793-796.	5.2	191
67	Effect of substrate on phase formation and surface morphology of sol-gel lead-free KNbO3, NaNbO3, and K0.5Na0.5NbO3 thin films. Chemical Papers, 2012, 66, .	2.2	8
68	Effect of sol-gel preparation method on particle morphology in pure and nanocomposite PZT thin films. Chemical Papers, 2011, 65, .	2.2	7
69	Tribological Characteristics of Micro- and Nano-Composites Cu-Al2O3 at Room and Elevated Temperatures. High Temperature Materials and Processes, 2011, 30, .	1.4	1
70	Damage mechanism of AZ61-F Mg alloy with nano-Al2O3 particles. Metallic Materials, 2011, 49, 451-455.	0.3	2
71	Tribological behavior of carbon nanofiberâ€“zirconia composite. Scripta Materialia, 2010, 63, 254-257.	5.2	34
72	Effect of heat treatment on wear damage mechanisms in 3Y-TZP ceramics. Wear, 2010, 269, 26-30.	3.1	14

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73	Wear resistance of hot-pressed Si3N4/SiC micro/nanocomposites sintered with rare-earth oxide additives. Wear, 2010, 269, 867-874.	3.1	46
74	Study of near surface changes in yttria-doped tetragonal zirconia after low temperature degradation. International Journal of Materials Research, 2009, 100, 92-96.	0.3	18
75	High Temperature Properties of the MoSi2 and MoSi2 SiC Nonocomposites. High Temperature Materials and Processes, 2009, 28, 271-276.	1.4	2
76	In situtensile testing in SEM of Al-Al₄C₃nanomaterials. Estonian Journal of Engineering, 2009, 15, 247.	0.4	8
77	Residual Stresses in Laminar Functionally Graded Ceramic Materials. Key Engineering Materials, 2007, 333, 259-262.	0.4	0
78	Mechanical properties and thermal shock behaviour of an alumina/zirconia functionally graded material prepared by electrophoretic deposition. Journal of the European Ceramic Society, 2007, 27, 1365-1371.	5.7	36
79	Processing, microstructure and creep testing of Ptâ€“Y2O3 composites. Materials & Design, 2007, 28, 2540-2543.	5.1	3
80	Creep Testing of MoSi2 - Bases Composites. High Temperature Materials and Processes, 2006, 25, 139-142.	1.4	2
81	Thermal residual stress gradients in an aluminaâ€“zirconia composite obtained by electrophoretic deposition. Journal of the European Ceramic Society, 2006, 26, 553-558.	5.7	7
82	Microstructure and mechanical properties of ZrO<SUB align=right>2 reinforced MoSi<SUB align=right>2 matrix composites. International Journal of Materials and Product Technology, 2005, 22, 322.	0.2	1
83	Enhanced Creep Resistant Silicon-Nitride-Based Nanocomposite. Journal of the American Ceramic Society, 2005, 88, 1500-1503.	3.8	20
84	Mechanical properties of phases in Alâ€“Al4C3 mechanically alloyed material measured by depth sensing indentation technique. Materials Letters, 2005, 59, 1971-1975.	2.6	22
85	Creep behaviour of MoSi2â€“HfO2 composites. Journal of Materials Science, 2005, 40, 3869-3871.	3.7	1
86	Residual Stress Profile Determined by Piezo-Spectroscopy in Alumina/Alumina-Zirconia Layers Separated by a Compositionally Graded Intermediate Layer. Key Engineering Materials, 2005, 290, 328-331.	0.4	2
87	Compressive Creep Testing of Pt-Y2O3 Composites. High Temperature Materials and Processes, 2005, 24, 189-192.	1.4	0
88	Mechanical Properties of Alumina/Zirconia Functionally Graded Material Prepared by Electrophoretic Deposition. Key Engineering Materials, 2005, 290, 332-335.	0.4	4
89	Influence of Al4C3particle volume fraction on fracture mechanism in Al-Al4C3composite. Journal of Materials Science, 2004, 39, 1071-1074.	3.7	5
90	Creep behavior of MoSi₂and MoSi₂+ SiC composite. Journal of Materials Science, 2004, 39, 4073-4077.	3.7	3

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91	Mechanical properties of Si3N4/SiC nanocomposites studied by instrumented indentation with spheres. Journal of the European Ceramic Society, 2004, 24, 3345-3350.	5.7	4
92	Creep behavior of a carbon-derived Si3N4/SiC nanocomposite. Journal of the European Ceramic Society, 2004, 24, 3307-3315.	5.7	26
93	Damage mechanism of Alâ€“12Al4C3. Materials Letters, 2004, 58, 867-870.	2.6	7
94	Indentation moduli and microhardness of REâ€“Siâ€“Mgâ€“Oâ€“N glasses (RE=Sc, Y, La, Sm, Yb and Lu) with different nitrogen content. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 357, 181-187.	5.6	30
95	Fracture and Mechanical Properties of MoSi₂ and MoSi₂ + SiC. Key Engineering Materials, 2003, 251-252, 13-18.	0.4	1
96	Indentation Crack Healing in Low Glass-Content Mullite. Key Engineering Materials, 2002, 223, 257-260.	0.4	5
97	Stress-Corrosion Cracking in Alumina Ceramics. Key Engineering Materials, 2002, 223, 187-192.	0.4	1
98	Stress Induced Depolarisation of Ferroelectrics in Thin Film Form. Ferroelectrics, 2002, 267, 367-372.	0.6	0
99	Mechanical and electromechanical properties of PZT sol-gel thin films measured by nanoindentation. Integrated Ferroelectrics, 2001, 41, 53-62.	0.7	12
100	Creep behaviour of MoSi2â€“SiC and MoSi2â€“HfO2. Materials Letters, 2001, 51, 485-489.	2.6	11
101	Fatigue behaviour of mullite studied by the indentation flexure method. Journal of the European Ceramic Society, 2001, 21, 53-61.	5.7	2
102	Effect of aqueous solutions on time-dependent failure of a glass-bonded alumina. Journal of Materials Science Letters, 2001, 20, 745-749.	0.5	0
103	Fatigue Crack Growth in Self-Reinforced Silicon Nitride Based Materials. Key Engineering Materials, 2000, 175-176, 253-260.	0.4	0
104	SiC/Si3N4 nano/micro-composite â€" processing, RT and HT mechanical properties. Journal of the European Ceramic Society, 2000, 20, 453-462.	5.7	82
105	Young's Modulus Measurement of Silicon Nitride Ceramics by Indentation Methods. Key Engineering Materials, 1999, 175-176, 335-0.	0.4	0
106	Bending creep behaviour of pressureless sintered MoSi2. Scripta Materialia, 1997, 37, 471-476.	5.2	9
107	Short Term Deformation and Relaxation Behaviour of Silicon Nitride Ceramics. , 1997, , 389-397.		0
108	Indentation Fatigue of Some Si3N4 Based Ceramics. , 1997, , 399-407.		0

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109	Deformation and fracture behaviour of two Si3N4 ceramics with different sintering additives. Scripta Metallurgica Et Materialia, 1995, 32, 1459-1464.	1.0	1
110	Effect of Low Temperature Degradation on Scratch Behaviour of 3Y-TZP. Key Engineering Materials, 0, 409, 322-325.	0.4	1
111	Carbon Nanofibers Reinforced Ceramic Matrix Composites. , 0, , .		9
112	Wear Behavior of ZrO₂-CNF and Si₃N₄-CNT Nanocomposites. Key Engineering Materials, 0, 465, 495-498.	0.4	16
113	Mechanical and Tribological Properties of Al₂O₃-ZrO₂ Based Composites Prepared by EPD. Key Engineering Materials, 0, 507, 191-195.	0.4	1
114	Nanohardness of Individual Phases in WC â€“ Co Cemented Carbides. Key Engineering Materials, 0, 586, 23-26.	0.4	6
115	Local Mechanical Properties of Various Bone Cements. Key Engineering Materials, 0, 592-593, 382-385.	0.4	1
116	Local Mechanical Properties of Cast and Sintered High Cr-Alloyed Steel. Key Engineering Materials, 0, 586, 241-244.	0.4	0
117	The Influence of Current Density on Tribological Behavior Ni-Co Electroplated Coatings. Key Engineering Materials, 0, 635, 127-130.	0.4	5
118	Nanoindentation and AFM Studies on Tungsten Carbide Crystals in WC-Co Hardmetal. Key Engineering Materials, 0, 606, 107-110.	0.4	6
119	Instrumented Indentation of Composite Materials Prepared by Methods of Mechanochemistry. Key Engineering Materials, 0, 606, 241-244.	0.4	0
120	Wear and Mechanical Properties of Various Bone Cements â€“ Influence of Saline Environment. Key Engineering Materials, 0, 662, 147-150.	0.4	0
121	Local Mechanical Properties of SiC - TiNbC Composite and its Constituents. Defect and Diffusion Forum, 0, 368, 158-161.	0.4	2
122	Residual Stress Profile Determined by Piezo-Spectroscopy in Alumina/Alumina-Zirconia Layers Separated by a Compositionally Graded Intermediate Layer. Key Engineering Materials, 0, , 328-331.	0.4	1