Frantisek Lofaj

List of Publications by Year
in descending order

60 papers	819 citations	430754 18 h-index	526166 27 g-index
62 all docs	62 docs citations	62 times ranked	708 citing authors

#	Article	IF	Citations
1	Modelling of tribo-chemical reactions in HiPIMS W-C:H coatings during friction in different environments. Surface and Coatings Technology, 2022, 434, 128238.	2.2	3
2	Tribochemistry of Transfer Layer Evolution during Friction in HiPIMS W-C and W-C:H Coatings in Humid Oxidizing and Dry Inert Atmospheres. Coatings, 2022, 12, 493.	1.2	3
3	Wear and Erosion Resistant Ceramic Coatings. , 2021, , 425-439.		0
4	Glassâ€ceramic Ce³⁺â€doped YAGâ€Al₂O₃ composites prepared by sintering of glass microspheres. International Journal of Applied Glass Science, 2021, 12, 497-508.	1.0	1
5	Transfer layer evolution during friction in HIPIMS Wâ€"C coatings. Wear, 2021, 486-487, 204123.	1.5	5
6	Structural and mechanical properties of W-C:â€‰H coatings prepared by HiTUS. Metallurgical Research and Technology, 2021, 118, 210.	0.4	0
7	The effect of humidity on friction behavior of hydrogenated HIPIMS W-C:H coatings. Surface and Coatings Technology, 2021, 428, 127899.	2.2	3
8	The effects of deposition conditions on hydrogenation, hardness and elastic modulus of W-C:H coatings. Journal of the European Ceramic Society, 2020, 40, 2721-2730.	2.8	11
9	HARDNESS OF HYBRID PVD-PECVD W-C:H COATINGS VS. SUBSTRATE TYPE. Acta Polytechnica CTU Proceedings, 2020, 27, 62-66.	0.3	0
10	Hydrogenation and hybridization in hard W-C:H coatings prepared by hybrid PVD-PECVD method with methane and acetylene. International Journal of Refractory Metals and Hard Materials, 2020, 88, 105211.	1.7	7
11	The Effect of Plasma Pretreatment on the Morphology and Properties of Hitus Coatings. Powder Metallurgy Progress, 2020, 20, 21-29.	0.6	0
12	Hybrid PVD-PECVD W-C:H coatings prepared by different sputtering techniques: The comparison of deposition processes, composition and properties. Surface and Coatings Technology, 2019, 375, 839-853.	2.2	14
13	Ultra-high strength martensitic 420 stainless steel with high ductility. Additive Manufacturing, 2019, 29, 100803.	1.7	39
14	Advanced Mechanical Strength in Post Heat Treated SLM 2507 at Room and High Temperature Promoted by Hard/Ductile Sigma Precipitates. Metals, 2019, 9, 199.	1.0	34
15	Tribological behavior of hydrogenated W-C/a-C:H coatings deposited by three different sputtering techniques. Ceramica, 2019, 65, 58-69.	0.3	13
16	The comparison of structure and properties in DC magnetron sputtered and HiPIMS W-C:H coatings with different hydrogen content. Ceramics International, 2019, 45, 9502-9514.	2.3	19
17	Mechanical and tribological properties of the High Target Utilization Sputtering W-C coatings on different substrates. International Journal of Refractory Metals and Hard Materials, 2019, 80, 305-314.	1.7	19
18	FEM of Cracking during Nanoindentation and Scratch Testing in the Hard W-C Coating/Steel Substrate System. Key Engineering Materials, 2018, 784, 127-134.	0.4	3

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19	Optimization of Tilted Implant Geometry for Stress Reduction in All-on-4 Treatment Concept: Finite Element Analysis Study. International Journal of Oral and Maxillofacial Implants, 2018, 33, 1287-1295.	0.6	8
20	Multiple cohesive cracking during nanoindentation in a hard W-C coating/steel substrate system by FEM. Journal of the European Ceramic Society, 2017, 37, 4379-4388.	2.8	19
21	Mechanical and tribological properties of alumina-MWCNTs composites sintered by rapid hot-pressing. Journal of the European Ceramic Society, 2017, 37, 4821-4831.	2.8	18
22	The effects of tip sharpness and coating thickness on nanoindentation measurements in hard coatings on softer substrates by FEM. Thin Solid Films, 2017, 644, 173-181.	0.8	20
23	Reactive processes in the high target utilization sputtering (HiTUS) W-C based coatings. Journal of the European Ceramic Society, 2016, 36, 3029-3040.	2.8	23
24	Mechanical and Tribological Properties of HiPIMS and HiTUS W-C Based Coatings. Key Engineering Materials, 2015, 662, 99-102.	0.4	5
25	Austenitic stainless steel strengthened by the in situ formation of oxide nanoinclusions. RSC Advances, 2015, 5, 20747-20750.	1.7	124
26	Indentation hardness and fatigue of the constituents of WCâ€“Co composites. International Journal of Refractory Metals and Hard Materials, 2015, 49, 178-183.	1.7	19
27	The Influence of Indentation Conditions on Nanohardness Depth Profiles of W-C Based Coatings. Key Engineering Materials, 2014, 606, 175-178.	0.4	1
28	Electrochemical synthesis and functionality evaluation of silver nanostructured layers. Surface and Interface Analysis, 2014, 46, 333-339.	0.8	1
29	Indentation fatigue of WC grains in WCâ€“Co composite. Journal of the European Ceramic Society, 2014, 34, 3407-3412.	2.8	32
30	Indentation fatigue of WCâ€“Co cemented carbides. International Journal of Refractory Metals and Hard Materials, 2013, 41, 229-235.	1.7	26
31	Nanoindentation of WCâ€“Co hardmetals. Journal of the European Ceramic Society, 2013, 33, 2227-2232.	2.8	66
32	Nanoindentation, AFM and tribological properties of thin nc-WC/a-C Coatings. Journal of the European Ceramic Society, 2012, 32, 2043-2051.	2.8	26
33	4-Aminothiophenol Strong SERS Signal Enhancement at Electrodeposited Silver Surface. Nano-Micro Letters, 2012, 4, 184-188.	14.4	15
34	Failure of spent nuclear fuel canister mock-ups at isostatic pressure. Engineering Failure Analysis, 2007, 14, 47-62.	1.8	5
35	Creep mechanisms in quasi-plastic silicon nitride by instrumented indentation. Journal of the European Ceramic Society, 2006, 26, 3933-3942.	2.8	0
36	The influence of external factors on superplastic deformation of Al Al<SUB align=right>4C<SUB align=right>3 composites. International Journal of Materials and Product Technology, 2005, 22, 263.	0.1	2

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37	Thermal Shock Resistance of the RE-Oxide and Oxynitride Glasses. Key Engineering Materials, 2005, 290, 296-299.	0.4	0
38	Contact Strength of the RE-Oxynitride Glasses. Key Engineering Materials, 2005, 290, 102-109.	0.4	0
39	Creep Behavior of Improved High Temperature Silicon Nitride. Key Engineering Materials, 2005, 287, 381-392.	0.4	9
40	Rheological Properties of the Rare-Earth Doped Glasses. Key Engineering Materials, 2004, 264-268, 1867-1870.	0.4	4
41	Structure and rheological properties of the REâ€“Siâ€“Mgâ€“Oâ€“N (RE=Sc, Y, La, Nd, Sm, Gd, Yb and Lu) glasses. Journal of Non-Crystalline Solids, 2004, 344, 8-16.	1.5	58
42	Ultrasonic Velocity Technique for Nondestructive Quantification of Elastic Moduli Degradation during Creep in Silicon Nitride. Journal of the American Ceramic Society, 2003, 86, 817-822.	1.9	4
43	Non-cavitation tensile creep in Lu-doped silicon nitride. Journal of the European Ceramic Society, 2002, 22, 2479-2487.	2.8	40
44	Microstructural Degradation Accompanying Tensile Creep Deformation in Quasi-Ductile Silicon Nitride. Key Engineering Materials, 2000, 175-176, 321-334.	0.4	4
45	Creep Processes in the Advanced Silicon Nitride Ceramics. Key Engineering Materials, 2000, 171-174, 747-754.	0.4	10
46	Tensile creep behavior in an advanced silicon nitride. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 279, 61-72.	2.6	13
47	Elastic degradation of an advanced silicon nitride during tensile creep. Journal of the European Ceramic Society, 2000, 20, 1521-1525.	2.8	6
48	Tensile Creep Degradation in Quasi-Ductile Silicon Nitride. Key Engineering Materials, 1999, 166, 95-102.	0.4	3
49	Creep Damage in an Advanced Selfâ€Reinforced Silicon Nitride: Part I, Cavitation in the Amorphous Boundary Phase. Journal of the American Ceramic Society, 1999, 82, 1009-1019.	1.9	25
50	Grain Boundary Modification During Long-Term Creep in Silicon Nitride. Materials Science Forum, 1998, 294-296, 621-624.	0.3	3
51	Cavitational Strain Contribution to Tensile Creep in Vitreous Bonded Ceramics. Journal of the American Ceramic Society, 1997, 80, 1619-1623.	1.9	25
52	Fracture of Thin Walled Translucent Polycrystalline Alumina (PCA) Tubes. Key Engineering Materials, 0, 409, 223-230.	0.4	0
53	Nanohardness vs. Friction Behavior in Magnetron Sputtered and PECVD W-C Coatings. Key Engineering Materials, 0, 586, 35-38.	0.4	1
54	Nanohardness of Individual Phases in WC â€“ Co Cemented Carbides. Key Engineering Materials, 0, 586, 23-26.	0.4	6

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55	Nanohardness of CrN Coatings v<i>ersus</i> Deposition Parameters. Key Engineering Materials, 0, 606, 191-194.	0.4	3
56	Modeling of Stress Distribution in Dental Implant in Frontal Part of Mandible. Key Engineering Materials, 0, 606, 137-140.	0.4	1
57	Nanohardness of DC Magnetron Sputtered W â€“ C Coatings as a Function of Composition and Residual Stresses. Key Engineering Materials, 0, 662, 107-110.	0.4	4
58	Cracking in Brittle Coatings during Nanoindentation. Key Engineering Materials, 0, 662, 103-106.	0.4	0
59	The Effect of the Cortical Bone Thickness on the Stress Distribution in Dental Implants by FEM. Key Engineering Materials, 0, 662, 151-154.	0.4	0
60	Tensile Creep in the Next Generation Silicon Nitride. , 0, , 167-174.		16