

Petr Zeman

List of Publications by Year in descending order

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papers

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citations

201385

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times ranked

1463
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of high-temperature oxidation resistance and thermal stability of hard and optically transparent Hfâ€“Baâ€“Siâ€“Câ€“N films by Y or Ho addition. Journal of Non-Crystalline Solids, 2021, 553, 120470.	1.5	3
2	Self-formation of dual glassy-crystalline structure in magnetron sputtered Wâ€“Zr films. Vacuum, 2021, 187, 110099.	1.6	7
3	Reactive HiPIMS deposition of Al-oxide thin films using W-alloyed Al targets. Surface and Coatings Technology, 2021, 422, 127467.	2.2	5
4	Time-averaged and time-resolved ion fluxes related to reactive HiPIMS deposition of Ti-Al-N films. Surface and Coatings Technology, 2021, 424, 127638.	2.2	5
5	Metastable structures in magnetron sputtered Wâ€“Zr thin-film alloys. Journal of Alloys and Compounds, 2021, 888, 161558.	2.8	6
6	Three-Layer PdO/CuWO4/CuO System for Hydrogen Gas Sensing with Reduced Humidity Interference. Nanomaterials, 2021, 11, 3456.	1.9	7
7	Tuning Stoichiometry and Structure of Pd-WO3âˆ“x Thin Films for Hydrogen Gas Sensing by High-Power Impulse Magnetron Sputtering. Materials, 2020, 13, 5101.	1.3	3
8	Microstructure of High Temperature Oxidation Resistant Hf6B10Si31C2N50 and Hf7B10Si32C2N44 Films. Coatings, 2020, 10, 1170.	1.2	2
9	Bixbyite-Ta2N2O film prepared by HiPIMS and postdeposition annealing: Structure and properties. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	1
10	Molecular dynamics and experimental study of the growth, structure and properties of Zrâ€“Cu films. Journal of Alloys and Compounds, 2020, 828, 154433.	2.8	12
11	Nanoindentation and microbending analyses of glassy and crystalline Zr(Hf) Cu thin-film alloys. Surface and Coatings Technology, 2020, 399, 126139.	2.2	4
12	Effect of positive pulse voltage in bipolar reactive HiPIMS on crystal structure, microstructure and mechanical properties of CrN films. Surface and Coatings Technology, 2020, 393, 125773.	2.2	27
13	Extraordinary high-temperature behavior of electrically conductive Hf7B23Si22C6N40 ceramic film. Surface and Coatings Technology, 2020, 391, 125686.	2.2	5
14	Microstructure evolution in amorphous Hf-B-Si-C-N high temperature resistant coatings after annealing to 1500 Å°C in air. Scientific Reports, 2019, 9, 3603.	1.6	11
15	Impact of Al or Si addition on properties and oxidation resistance of magnetron sputtered Zrâ€“Hfâ€“Al/Siâ€“Cu metallic glasses. Journal of Alloys and Compounds, 2019, 772, 409-417.	2.8	10
16	Effect of annealing on structure and properties of Taâ€“Oâ€“N films prepared by high power impulse magnetron sputtering. Ceramics International, 2019, 45, 9454-9461.	2.3	10
17	Tuning properties and behavior of magnetron sputtered Zr-Hf-Cu metallic glasses. Journal of Alloys and Compounds, 2018, 739, 848-855.	2.8	8
18	Thermal stability of structure, microstructure and enhanced properties of Zrâ€“Taâ€“O films with a low and high Ta content. Surface and Coatings Technology, 2018, 335, 95-103.	2.2	5

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19	Study of the high-temperature oxidation resistance mechanism of magnetron sputtered Hf ₇ B ₂₃ Si ₁₇ C ₄ N ₄₅ film. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018, 36, .	0.9	7
20	Hydrogen gas sensing properties of WO ₃ sputter-deposited thin films enhanced by on-top deposited Al ₂ O ₃ nanoclusters. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 22756-22764.	3.8	31
21	On crystallization and oxidation behavior of Zr ₅₄ Cu ₄₆ and Zr ₂₇ Hf ₂₇ Cu ₄₆ thin-film metallic glasses compared to a crystalline Zr ₅₄ Cu ₄₆ thin-film alloy. <i>Journal of Non-Crystalline Solids</i> , 2018, 500, 475-481.	1.5	7
22	Amorphous Zr-Cu thin-film alloys with metallic glass behavior. <i>Journal of Alloys and Compounds</i> , 2017, 696, 1298-1306.	2.8	73
23	Superior high-temperature oxidation resistance of magnetron sputtered Hf ₅₀ B ₁₀ Si ₁₀ C ₂₀ N film. <i>Ceramics International</i> , 2016, 42, 4853-4859.	2.3	28
24	Thermal stability and transformation phenomena in magnetron sputtered Al ₂ O ₃ -Cu ₂ O films. <i>Ceramics International</i> , 2015, 41, 6020-6029.	2.3	3
25	Hard Nanocomposite Coatings. , 2014, , 325-353.		19
26	Thermally activated transformations in metastable alumina coatings prepared by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2014, 240, 7-13.	2.2	14
27	Effect of Si addition on mechanical properties and high temperature oxidation resistance of Ti ₅₀ B ₁₀ Si ₁₀ hard coatings. <i>Surface and Coatings Technology</i> , 2014, 240, 48-54.	2.2	29
28	Hard multifunctional Hf ₅₀ B ₁₀ Si ₁₀ C films prepared by pulsed magnetron sputtering. <i>Surface and Coatings Technology</i> , 2014, 257, 301-307.	2.2	20
29	Hard nanocrystalline Zr ₅₀ B ₁₀ C ₂₀ N films with high electrical conductivity prepared by pulsed magnetron sputtering. <i>Surface and Coatings Technology</i> , 2013, 215, 186-191.	2.2	23
30	Microstructure characterization of high-temperature, oxidation-resistant Si-B-C-N films. <i>Thin Solid Films</i> , 2013, 542, 167-173.	0.8	35
31	Non-isothermal kinetics of phase transformations in magnetron sputtered alumina films with metastable structure. <i>Thermochimica Acta</i> , 2013, 572, 85-93.	1.2	18
32	Pulsed reactive magnetron sputtering of high-temperature Si ₅₀ B ₁₀ C ₂₀ N films with high optical transparency. <i>Surface and Coatings Technology</i> , 2013, 226, 34-39.	2.2	22
33	Thermal stability of magnetron sputtered Si ₅₀ B ₁₀ C ₂₀ N materials at temperatures up to 1700°C. <i>Thin Solid Films</i> , 2010, 519, 306-311.	0.8	41
34	Thermal stability of alumina thin films containing β -Al ₂ O ₃ phase prepared by reactive magnetron sputtering. <i>Applied Surface Science</i> , 2010, 257, 1058-1062.	3.1	115
35	Protective Zr-containing SiO ₂ coatings resistant to thermal cycling in air up to 1400°C. <i>Surface and Coatings Technology</i> , 2009, 203, 1502-1507.	2.2	13
36	Properties of magnetron sputtered Al ₂ O ₃ -Si ₃ N ₄ thin films with a low and high Si content. <i>Surface and Coatings Technology</i> , 2008, 202, 3485-3493.	2.2	56

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37	Formation of crystalline Al ₂ O ₃ thin films and their properties. Surface and Coatings Technology, 2008, 202, 6064-6069.	2.2	17
38	Effect of the gas mixture composition on high-temperature behavior of magnetron sputtered Si ₃ N ₄ coatings. Surface and Coatings Technology, 2008, 203, 466-469.	2.2	42
39	Hard amorphous nanocomposite coatings with oxidation resistance above 1000°C. Advances in Applied Ceramics, 2008, 107, 148-154.	0.6	68
40	Magnetron sputtered Si ₃ N ₄ films with high oxidation resistance and thermal stability in air at temperatures above 1500°C. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 1101-1108.	0.9	27
41	Hard a-Si ₃ N ₄ /MeN _x Nanocomposite Coatings with High Thermal Stability and High Oxidation Resistance. Solid State Phenomena, 2007, 127, 31-36.	0.3	44
42	Effect of Al Addition on Structure and Properties of Sputtered TiC Films. Plasma Processes and Polymers, 2007, 4, S6-S10.	1.6	14
43	Oxidation of Sputtered Cu, Zr, ZrCu, ZrO ₂ , and Zr-Cu-O Films during Thermal Annealing in Flowing Air. Plasma Processes and Polymers, 2007, 4, S536-S540.	1.6	4
44	Ti-Si-N Films with a High Content of Si. Plasma Processes and Polymers, 2007, 4, S574-S578.	1.6	19
45	Difference in high-temperature oxidation resistance of amorphous Zr ₂ Si ₂ N ₄ and W ₂ Si ₂ N ₄ films with a high Si content. Applied Surface Science, 2006, 252, 8319-8325.	3.1	43
46	Properties of reactively sputtered W ₂ Si ₂ N ₄ films. Surface and Coatings Technology, 2006, 200, 3886-3895.	2.2	50
47	High-temperature oxidation resistance of Ta ₂ Si ₂ N ₄ films with a high Si content. Surface and Coatings Technology, 2006, 200, 4091-4096.	2.2	42
48	Thermal stability of magnetron sputtered Zr ₂ Si ₂ N ₄ films. Surface and Coatings Technology, 2006, 201, 3368-3376.	2.2	40
49	Structure and properties of magnetron sputtered Zr ₂ Si ₂ N ₄ films with a high (≈25 at.%) Si content. Thin Solid Films, 2005, 478, 238-247.	0.8	57
50	Reactive magnetron sputtering of hard Si ₃ N ₄ films with a high-temperature oxidation resistance. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 1513-1522.	0.9	76
51	Physical properties and high-temperature oxidation resistance of sputtered Si ₃ N ₄ -MoN _x nanocomposite coatings. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1568.	1.6	36
52	Physical and mechanical properties of sputtered Ta ₂ Si ₂ N ₄ films with a high (≈40 at.%) content of Si. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 646.	0.9	33
53	Nano-scaled photocatalytic TiO ₂ thin films prepared by magnetron sputtering. Thin Solid Films, 2003, 433, 57-62.	0.8	66
54	Morphology and Microstructure of Hard and Superhard Zr ₂ Cu ₂ N ₄ Nanocomposite Coatings. Japanese Journal of Applied Physics, 2002, 41, 6529-6533.	0.8	22

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55	Self-cleaning and antifogging effects of TiO ₂ films prepared by radio frequency magnetron sputtering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002, 20, 388-393.	0.9	67
56	Effect of total and oxygen partial pressures on structure of photocatalytic TiO ₂ films sputtered on unheated substrate. <i>Surface and Coatings Technology</i> , 2002, 153, 93-99.	2.2	201
57	Hard and superhard nanocomposite Al-Cu-N films prepared by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2001, 142-144, 603-609.	2.2	33
58	Structure and properties of hard and superhard Zr-Cu-N nanocomposite coatings. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 289, 189-197.	2.6	139
59	Structure and microhardness of magnetron sputtered ZrCu and ZrCu-N films. <i>Vacuum</i> , 1999, 52, 269-275.	1.6	41
60	ZrN/Cu nanocomposite film—a novel superhard material. <i>Surface and Coatings Technology</i> , 1999, 120-121, 179-183.	2.2	200
61	Hard a-Si ₃ N ₄ /MeN _x Nanocomposite Coatings with High Thermal Stability and High Oxidation Resistance. <i>Solid State Phenomena</i> , 0, , 31-36.	0.3	2