Stefan Wurster

List of Publications by Year
in descending order

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53	2,613	361045	182168
papers	citations	20	51
		h-index	g-index

53	53	53	2017
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recent progress in research on tungsten materials for nuclear fusion applications in Europe. Journal of Nuclear Materials, 2013, 432, 482-500.	1.3	610
2	Recent progress in R&D on tungsten alloys for divertor structural and plasma facing materials. Journal of Nuclear Materials, 2013, 442, S181-S189.	1.3	272
3	Fracture toughness of polycrystalline tungsten alloys. International Journal of Refractory Metals and Hard Materials, 2010, 28, 674-678.	1.7	163
4	Review on the EFDA programme on tungsten materials technology and science. Journal of Nuclear Materials, 2011, 417, 463-467.	1.3	157
5	Characterization of the fracture toughness of micro-sized tungsten single crystal notched specimens. Philosophical Magazine, 2012, 92, 1803-1825.	0.7	145
6	Nanostructured metals under irradiation. Scripta Materialia, 2009, 60, 1083-1087.	2.6	127
7	Dislocation-core symmetry and slip planes in tungsten alloys: Ab initio calculations and microcantilever bending experiments. Acta Materialia, 2012, 60, 748-758.	3.8	106
8	Fracture behaviour of tungstenâ€“vanadium and tungstenâ€“tantalum alloys and composites. Journal of Nuclear Materials, 2011, 413, 166-176.	1.3	96
9	The use of femtosecond laser ablation as a novel tool for rapid micro-mechanical sample preparation. Materials and Design, 2017, 121, 109-118.	3.3	92
10	Anisotropic deformation characteristics of an ultrafine- and nanolamellar pearlitic steel. Acta Materialia, 2016, 106, 239-248.	3.8	82
11	High temperature fracture experiments on tungstenâ€“rhenium alloys. International Journal of Refractory Metals and Hard Materials, 2010, 28, 692-697.	1.7	81
12	Feasibility study of a tungsten wire-reinforced tungsten matrix composite with ZrOx interfacial coatings. Composites Science and Technology, 2010, 70, 1482-1489.	3.8	69
13	A brief summary of the progress on the EFDA tungsten materials program. Journal of Nuclear Materials, 2013, 442, S173-S180.	1.3	69
14	Effect of specimen size on the tensile strength of WCâ€“Co hard metal. Acta Materialia, 2011, 59, 4244-4252.	3.8	65
15	Direct evidence for grain boundary motion as the dominant restoration mechanism in the steady-state regime of extremely cold-rolled copper. Acta Materialia, 2014, 77, 401-410.	3.8	52
16	Correlative characterization of primary Al3(Sc,Zr) phase in an Alâ€“Znâ€“Mg based alloy. Materials Characterization, 2015, 102, 62-70.	1.9	43
17	Ductilisation of tungsten (W) through cold-rolling: R-curve behaviour. International Journal of Refractory Metals and Hard Materials, 2016, 58, 22-33.	1.7	40
18	Tungsten fibre-reinforced composites for advanced plasma facing components. Nuclear Materials and Energy, 2017, 12, 1308-1313.	0.6	30

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19	Micrometerâ€Sized Specimen Preparation Based on Ion Slicing Technique. Advanced Engineering Materials, 2010, 12, 61-64.	1.6	25
20	Impact of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>d</mml:mi></mml:math> -band filling on the dislocation properties of bcc transition metals: The case of tantalum-tungsten alloys investigated by density-functional theory. Physical Review B, 2017, 95, .	1.1	23
21	Advanced characterisation of thermo-mechanical fatigue mechanisms of different copper film systems for wafer metallizations. Thin Solid Films, 2016, 612, 153-164.	0.8	20
22	A study into the crack propagation resistance of pure tungsten. Engineering Fracture Mechanics, 2013, 100, 76-85.	2.0	18
23	An analytical solution for the correct determination of crack lengths via cantilever stiffness. Materials and Design, 2020, 194, 108914.	3.3	18
24	Improved fracture behavior and microstructural characterization of thin tungsten foils. Nuclear Materials and Energy, 2016, 9, 181-188.	0.6	17
25	Magnetic Binary Supersaturated Solid Solutions Processed by Severe Plastic Deformation. Nanomaterials, 2019, 9, 6.	1.9	16
26	Fracture toughness evaluation of UFG tungsten foil. International Journal of Refractory Metals and Hard Materials, 2018, 76, 214-225.	1.7	15
27	Strain Induced Anisotropic Magnetic Behaviour and Exchange Coupling Effect in Fe-SmCo5 Permanent Magnets Generated by High Pressure Torsion. Crystals, 2020, 10, 1026.	1.0	13
28	Deformation and fracture characteristics of ultrafine-grained vanadium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 650, 492-496.	2.6	12
29	Accelerated thermo-mechanical fatigue of copper metallizations studied by pulsed laser heating. Microelectronic Engineering, 2017, 167, 110-118.	1.1	12
30	Intermixing of Fe and Cu on the atomic scale by high-pressure torsion as revealed by DC- and AC-SQUID susceptometry and atom probe tomography. Acta Materialia, 2020, 196, 210-219.	3.8	11
31	Correlative microstructure and topography informed nanoindentation of copper films. Surface and Coatings Technology, 2016, 308, 404-413.	2.2	9
32	Microstructural Changes Influencing the Magnetoresistive Behavior of Bulk Nanocrystalline Materials. Applied Sciences (Switzerland), 2020, 10, 5094.	1.3	9
33	Tuneable Magneto-Resistance by Severe Plastic Deformation. Metals, 2019, 9, 1188.	1.0	8
34	Film thickness dependent microstructural changes of thick copper metallizations upon thermal fatigue. Journal of Materials Research, 2017, 32, 2022-2034.	1.2	7
35	Sampling the Cuâ€“Feâ€“Co phase diagram by severe plastic deformation for enhanced soft magnetic properties. Journal of Materials Research and Technology, 2021, 12, 1235-1242.	2.6	7
36	Rapid solidification and metastable phase formation during surface modifications of composite Al-Cr cathodes exposed to cathodic arc plasma. Journal of Materials Science and Technology, 2021, 94, 147-163.	5.6	7

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37	Manufacturing of Textured Bulk Fe-SmCo5 Magnets by Severe Plastic Deformation. Nanomaterials, 2022, 12, 963.	1.9	7
38	Tuning mechanical properties of ultrafine-grained tungsten by manipulating grain boundary chemistry. Acta Materialia, 2022, 232, 117939.	3.8	7
39	Fracture of severely plastically deformed Ta and Nb. International Journal of Refractory Metals and Hard Materials, 2017, 64, 143-150.	1.7	6
40	Magnetic dilution by severe plastic deformation. AIP Advances, 2020, 10, 015210.	0.6	6
41	Site Specific Microstructural Evolution of Thermo-mechanically Fatigued Copper Films. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2015, 160, 235-239.	0.4	5
42	Substrate-Influenced Thermo-Mechanical Fatigue of Copper Metallizations: Limits of Stoneyâ€™s Equation. Materials, 2017, 10, 1287.	1.3	5
43	Nanocrystalline FeCr alloys synthesised by severe plastic deformation â€“ A potential material for exchange bias and enhanced magnetostriction. Journal of Magnetism and Magnetic Materials, 2021, 534, 168017.	1.0	5
44	On the magnetic nanostructure of a Coâ€“Cu alloy processed by high-pressure torsion. Journal of Science: Advanced Materials and Devices, 2021, 6, 33-41.	1.5	4
45	Oxide-stabilized microstructure of severe plastically deformed CuCo alloys. Journal of Alloys and Compounds, 2022, 901, 163616.	2.8	4
46	High-throughput study of binary thin film tungsten alloys. International Journal of Refractory Metals and Hard Materials, 2017, 69, 40-48.	1.7	3
47	Novel Î± + Î² Type Ti-Fe-Cu Alloys Containing Sn with Pertinent Mechanical Properties. Metals, 2020, 10, 34.	1.0	3
48	Soft Magnetic Properties of Ultra-Strong and Nanocrystalline Pearlitic Wires. Nanomaterials, 2022, 12, 23.	1.9	3
49	Micro-Compression Test of Thixoformed Austenite. Solid State Phenomena, 2012, 192-193, 215-218.	0.3	2
50	Microstructure and Failure Characteristics of Nanostructured Molybdenumâ€“Copper Composites. Advanced Engineering Materials, 2020, 22, 1900474.	1.6	2
51	Processing of Nanostructured Bulk Fe-Cr Alloys by Severe Plastic Deformation. Materials Science Forum, 0, 1016, 1603-1610.	0.3	2
52	In situ AC-hysteresis measurements of SPD-processed Cu20(Fe15Co85)80. AIP Advances, 2021, 11, 015033.	0.6	2
53	Statistical Quantification of the Impact of Surface Preparation on Yield Point Phenomena in Nickel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4307-4315.	1.1	1