

# Stefan Wurster

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2020399/publications.pdf>

Version: 2024-02-01

53  
papers

2,613  
citations

361045  
20  
h-index

182168  
51  
g-index

53  
all docs

53  
docs citations

53  
times ranked

2017  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Oxide-stabilized microstructure of severe plastically deformed CuCo alloys. Journal of Alloys and Compounds, 2022, 901, 163616.   | 2.8 | 4         |
| 2  | Manufacturing of Textured Bulk Fe-SmCo5 Magnets by Severe Plastic Deformation. Nanomaterials, 2022, 12, 963.  | 1.9 | 7         |
| 3  | Soft Magnetic Properties of Ultra-Strong and Nanocrystalline Pearlitic Wires. Nanomaterials, 2022, 12, 23.  | 1.9 | 3         |
| 4  | Tuning mechanical properties of ultrafine-grained tungsten by manipulating grain boundary chemistry. Acta Materialia, 2022, 232, 117939.  | 3.8 | 7         |
| 5  | On the magnetic nanostructure of a Co-Cu alloy processed by high-pressure torsion. Journal of Science: Advanced Materials and Devices, 2021, 6, 33-41.  | 1.5 | 4         |
| 6  | Sampling the Cu-Fe-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         |
| 7  | Nanocrystalline FeCr alloys synthesised by severe plastic deformation – A potential material for exchange bias and enhanced magnetostriction. Journal of Magnetism and Magnetic Materials, 2021, 534, 168017. | 1.0 | 5         |
| 8  | 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         |
| 9  | In situ AC-hysteresis measurements of SPD-processed Cu <sub>20</sub> (Fe <sub>15</sub> Co <sub>85</sub> ) <sub>80</sub> . AIP Advances, 2021, 11, 015033.   | 0.6 | 2         |
| 10 | Microstructure and Failure Characteristics of Nanostructured Molybdenum-Copper Composites. Advanced Engineering Materials, 2020, 22, 1900474.   | 1.6 | 2         |
| 11 | Novel $\hat{1}\pm + \hat{1}^2$ Type Ti-Fe-Cu Alloys Containing Sn with Pertinent Mechanical Properties. Metals, 2020, 10, 34.   | 1.0 | 3         |
| 12 | 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        |
| 13 | 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        |
| 14 | Microstructural Changes Influencing the Magnetoresistive Behavior of Bulk Nanocrystalline Materials. Applied Sciences (Switzerland), 2020, 10, 5094.  | 1.3 | 9         |
| 15 | An analytical solution for the correct determination of crack lengths via cantilever stiffness. Materials and Design, 2020, 194, 108914.  | 3.3 | 18        |
| 16 | Magnetic dilution by severe plastic deformation. AIP Advances, 2020, 10, 015210.  | 0.6 | 6         |
| 17 | Tuneable Magneto-Resistance by Severe Plastic Deformation. Metals, 2019, 9, 1188.   | 1.0 | 8         |
| 18 | Magnetic Binary Supersaturated Solid Solutions Processed by Severe Plastic Deformation. Nanomaterials, 2019, 9, 6.  | 1.9 | 16        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Fracture toughness evaluation of UFG tungsten foil. International Journal of Refractory Metals and Hard Materials, 2018, 76, 214-225.  | 1.7 | 15        |
| 20 | Tungsten fibre-reinforced composites for advanced plasma facing components. Nuclear Materials and Energy, 2017, 12, 1308-1313.   | 0.6 | 30        |
| 21 | 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        |
| 22 | Film thickness dependent microstructural changes of thick copper metallizations upon thermal fatigue. Journal of Materials Research, 2017, 32, 2022-2034.  | 1.2 | 7         |
| 23 | Impact of $d$ -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        |
| 24 | Fracture of severely plastically deformed Ta and Nb. International Journal of Refractory Metals and Hard Materials, 2017, 64, 143-150.   | 1.7 | 6         |
| 25 | High-throughput study of binary thin film tungsten alloys. International Journal of Refractory Metals and Hard Materials, 2017, 69, 40-48.   | 1.7 | 3         |
| 26 | Accelerated thermo-mechanical fatigue of copper metallizations studied by pulsed laser heating. Microelectronic Engineering, 2017, 167, 110-118.   | 1.1 | 12        |
| 27 | Substrate-Influenced Thermo-Mechanical Fatigue of Copper Metallizations: Limits of Stoney's Equation. Materials, 2017, 10, 1287.   | 1.3 | 5         |
| 28 | Improved fracture behavior and microstructural characterization of thin tungsten foils. Nuclear Materials and Energy, 2016, 9, 181-188.  | 0.6 | 17        |
| 29 | Correlative microstructure and topography informed nanoindentation of copper films. Surface and Coatings Technology, 2016, 308, 404-413.   | 2.2 | 9         |
| 30 | 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        |
| 31 | 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        |
| 32 | Anisotropic deformation characteristics of an ultrafine- and nanolamellar pearlitic steel. Acta Materialia, 2016, 106, 239-248.  | 3.8 | 82        |
| 33 | 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        |
| 34 | Correlative characterization of primary Al <sub>3</sub> (Sc,Zr) phase in an Al-Zn-Mg based alloy. Materials Characterization, 2015, 102, 62-70.  | 1.9 | 43        |
| 35 | 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         |
| 36 | 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        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | 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         |
| 38 | A brief summary of the progress on the EFDA tungsten materials program. Journal of Nuclear Materials, 2013, 442, S173-S180.   | 1.3 | 69        |
| 39 | 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       |
| 40 | A study into the crack propagation resistance of pure tungsten. Engineering Fracture Mechanics, 2013, 100, 76-85.   | 2.0 | 18        |
| 41 | Recent progress in research on tungsten materials for nuclear fusion applications in Europe. Journal of Nuclear Materials, 2013, 432, 482-500.  | 1.3 | 610       |
| 42 | Characterization of the fracture toughness of micro-sized tungsten single crystal notched specimens. Philosophical Magazine, 2012, 92, 1803-1825.   | 0.7 | 145       |
| 43 | Micro-Compression Test of Thixoformed Austenite. Solid State Phenomena, 2012, 192-193, 215-218.   | 0.3 | 2         |
| 44 | 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       |
| 45 | Review on the EFDA programme on tungsten materials technology and science. Journal of Nuclear Materials, 2011, 417, 463-467.  | 1.3 | 157       |
| 46 | Effect of specimen size on the tensile strength of WCâ€Co hard metal. Acta Materialia, 2011, 59, 4244-4252.   | 3.8 | 65        |
| 47 | Fracture behaviour of tungstenâ€vanadium and tungstenâ€tantalum alloys and composites. Journal of Nuclear Materials, 2011, 413, 166-176.  | 1.3 | 96        |
| 48 | High temperature fracture experiments on tungstenâ€rhenium alloys. International Journal of Refractory Metals and Hard Materials, 2010, 28, 692-697.  | 1.7 | 81        |
| 49 | Fracture toughness of polycrystalline tungsten alloys. International Journal of Refractory Metals and Hard Materials, 2010, 28, 674-678.  | 1.7 | 163       |
| 50 | Micrometerâ€Sized Specimen Preparation Based on Ion Slicing Technique. Advanced Engineering Materials, 2010, 12, 61-64.   | 1.6 | 25        |
| 51 | 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        |
| 52 | Nanostructured metals under irradiation. Scripta Materialia, 2009, 60, 1083-1087.   | 2.6 | 127       |
| 53 | Processing of Nanostructured Bulk Fe-Cr Alloys by Severe Plastic Deformation. Materials Science Forum, 0, 1016, 1603-1610.  | 0.3 | 2         |