

# Hans-Jörg Fecht

## List of Publications by Year in descending order

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67  
papers

1,685  
citations

430843

18  
h-index

289230

40  
g-index

94  
all docs

94  
docs citations

94  
times ranked

2113  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ni-based superalloys for turbine discs. <i>Jom</i> , 1999, 51, 14-17.	1.9	229
2	Effect of size and shape of metal particles to improve hardness and electrical properties of carbon nanotube reinforced copper and copper alloy composites. <i>Composites Science and Technology</i> , 2010, 70, 2253-2257.	7.8	193
3	Flexible piezoelectric nanogenerators based on a fiber/ZnO nanowires/paper hybrid structure for energy harvesting. <i>Nano Research</i> , 2014, 7, 917-928.	10.4	152
4	Carbon fiber/ZnO nanowire hybrid structures for flexible and adaptable strain sensors. <i>Nanoscale</i> , 2013, 5, 12350.	5.6	112
5	The structure of intercrystalline interfaces. <i>Progress in Materials Science</i> , 2000, 45, 339-568.	32.8	92
6	$\gamma$ ' formation in superalloy U720LI. <i>Scripta Materialia</i> , 1999, 40, 1215-1220.	5.2	88
7	Influence of grain boundaries on elasticity and thermal conductivity of nanocrystalline diamond films. <i>Acta Materialia</i> , 2017, 122, 92-98.	7.9	72
8	Young's modulus, fracture strength, and Poisson's ratio of nanocrystalline diamond films. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	62
9	Light Effect on Water Viscosity: Implication for ATP Biosynthesis. <i>Scientific Reports</i> , 2015, 5, 12029.	3.3	59
10	Modulated electromagnetic induction calorimetry of reactive metallic liquids. <i>Measurement Science and Technology</i> , 2005, 16, 402-416.	2.6	48
11	Angle-insensitive plasmonic color filters with randomly distributed silver nanodisks. <i>Optics Letters</i> , 2015, 40, 4979.	3.3	46
12	Precise Measurements of Thermophysical Properties of Liquid Ti-6Al-4V (Ti64) Alloy On Board the International Space Station. <i>Advanced Engineering Materials</i> , 2020, 22, 2000169.	3.5	33
13	Studies of the Thermophysical Properties of Commercial CMSX-4 Alloy. <i>Journal of Chemical &amp; Engineering Data</i> , 2009, 54, 2584-2592.	1.9	28
14	Deformation induced frequency shifts of oscillating droplets during molten metal surface tension measurement. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	24
15	Shape controlled gold nanostructures on de-alloyed nanoporous gold with excellent SERS performance. <i>Chemical Physics Letters</i> , 2018, 709, 46-51.	2.6	23
16	Use of Thermophysical Properties to Select and Control Convection During Rapid Solidification of Steel Alloys Using Electromagnetic Levitation on the Space Station. <i>Jom</i> , 2017, 69, 1311-1318.	1.9	22
17	Reversible atomic processes as basic mechanisms of the glass transition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 12962-12965.	7.1	21
18	Fundamentals of Liquid Processing in Low Earth Orbit: From Thermophysical Properties to Microstructure Formation in Metallic Alloys. <i>Jom</i> , 2017, 69, 1261-1268.	1.9	21

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19	Class-transition process in an Au-based metallic glass. <i>Journal of Non-Crystalline Solids</i> , 2015, 419, 12-15.	3.1	20
20	MEMS-based microthruster with integrated platinum thin film resistance temperature detector (RTD), heater meander and thermal insulation for operation up to 1,000°C. <i>Microsystem Technologies</i> , 2012, 18, 1077-1087.	2.0	19
21	Surface Tension and Viscosity of the Ni-Based Superalloys LEK94 and CMSX-10 Measured by the Oscillating Drop Method on Board a Parabolic Flight. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017, 48, 237-246.	2.1	18
22	Electrodeposited platinum on de-alloyed nanoporous gold with enhanced electro-catalytic performance. <i>Applied Surface Science</i> , 2019, 476, 412-417.	6.1	18
23	N-Type Conductive Ultrananocrystalline Diamond Films Grown by Hot Filament CVD. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-6.	2.7	17
24	In-situ tensile test of high strength nanocrystalline bainitic steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 620, 30-35.	5.6	15
25	Breathing Volume into Interfacial Water with Laser Light. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 562-565.	4.6	14
26	Thermophysical Properties of Advanced Ni-Based Superalloys in the Liquid State Measured on Board the International Space Station. <i>Advanced Engineering Materials</i> , 2020, 22, 1901228.	3.5	14
27	First Direct In Situ Observation of Grain Boundary Sliding in Ultrafine Grained Noble Metal. <i>Advanced Engineering Materials</i> , 2014, 16, 517-521.	3.5	13
28	Surface Tension, Viscosity, and Selected Thermophysical Properties of Ti48Al48Nb2Cr2, Ti46Al46Nb8, and Ti46Al46Ta8 from Microgravity Experiments. <i>Advanced Engineering Materials</i> , 2018, 20, 1800346.	3.5	13
29	Genesis on diamonds II: contact with diamond enhances human sperm performance by 300%. <i>Annals of Translational Medicine</i> , 2016, 4, 407-407.	1.7	12
30	High throughput fabrication of large-area plasmonic color filters by soft-X-ray interference lithography. <i>Optics Express</i> , 2016, 24, 19112.	3.4	12
31	Interfacial Water an Exceptional Biolubricant. <i>Crystal Growth and Design</i> , 2009, 9, 3852-3854.	3.0	11
32	The Artificial Neural Networks Applied for Microelectronics Intergranular Relations Determination. <i>Integrated Ferroelectrics</i> , 2020, 212, 135-146.	0.7	11
33	Grain boundary dominated electrical conductivity in ultrananocrystalline diamond. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	10
34	Nanoporous gold chemically de-alloyed from Au-based amorphous thin film for electrochemical nonenzymatic H <sub>2</sub> O <sub>2</sub> sensing. <i>Chemical Physics Letters</i> , 2019, 723, 22-27.	2.6	10
35	Investigating Thermophysical Properties Under Microgravity: A Review. <i>Advanced Engineering Materials</i> , 2021, 23, 2001223.	3.5	10
36	Nanoporous gold thin films synthesised via de-alloying of Au-based nanoglass for highly active SERS substrates. <i>Philosophical Magazine</i> , 2018, 98, 2769-2781.	1.6	9

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37	Microstructure and electrochemical properties of nanoporous gold produced by dealloying Au-based thin film nanoglass. <i>Journal of Materials Research</i> , 2018, 33, 2661-2670.	2.6	8
38	Formation and Stability of Near Convolutd Structure Obtained in the Ti-46Al-8Ta Alloy Via Air Quenching and Ageing. <i>Advanced Engineering Materials</i> , 2010, 12, 30-34.	3.5	7
39	Correlating the stretched-exponential and super-Arrhenius behaviors in the structural relaxation of glass-forming liquids. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 155102.	1.8	7
40	The fractal nature as new frontier in microstructural characterization and relativization of scale sizes within space. <i>Modern Physics Letters B</i> , 2020, 34, 2050421.	1.9	7
41	Thermophysical Properties of an Fe 57.75 Ni 19.25 Mo 10 C 5 B 8 Glass-Forming Alloy Measured in Microgravity. <i>Advanced Engineering Materials</i> , 2021, 23, 2001143.	3.5	7
42	Observation of shear band formation in nanocrystalline Pd-Au alloy during in situ SEM compression testing. <i>Journal of Materials Science</i> , 2013, 48, 6841-6847.	3.7	6
43	Electronic ceramics fractal microstructure analysis - Minkowski Hull and grain boundaries. <i>Ferroelectrics</i> , 2019, 545, 184-194.	0.6	6
44	A Large Inverse Magnetocaloric Effect in Ni <sub>49.0</sub> Mn <sub>37.4</sub> Sn <sub>13.6</sub> Melt-Spun Ribbons at Room Temperature. <i>Nanoscience and Nanotechnology Letters</i> , 2009, 1, 151-155.	0.4	5
45	Single-exponential activation behavior behind the super-Arrhenius relaxations in glass-forming liquids. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 455104.	1.8	4
46	On limitations of the viscosity versus temperature plot for glass-forming substances. <i>Materials Letters</i> , 2016, 182, 355-358.	2.6	4
47	Fractal dimension of fractals tensor product ferroelectric ceramic materials frontiers. <i>Ferroelectrics</i> , 2018, 535, 114-119.	0.6	4
48	Sperm Performance Better on Diamond than on Polystyrene. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1511, 1.	0.1	3
49	Thermal conductivity of nanocrystalline diamond films grown by hot filament chemical vapor deposition. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 2590-2593.	1.8	3
50	Broadband Optical Absorber Based on Nanopatterned Metallic Glass Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 6055-6060.	4.6	3
51	Fractal Nature of Advanced Ni-Based Superalloys Solidified on Board the International Space Station. <i>Remote Sensing</i> , 2021, 13, 1724.	4.0	3
52	Measurement of Thermophysical Properties Using the ISS-EML. <i>Minerals, Metals and Materials Series</i> , 2022, , 263-280.	0.4	3
53	Industrialization - Large-Scale Production of Nanomaterials/Components. , 2015, , 677-684.		2
54	Overview on Nanotechnology R&D and Commercialization in the Asia Pacific Region. , 2015, , 37-54.		2

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55	A European Strategy for Micro- and Nanoelectronic Components and Systems. , 2015, , 1-18.		2
56	Indenter size effect in high-pressure torsion deformed Pd-based metallic glass. International Journal of Materials Research, 2018, 109, 381-385.	0.3	2
57	Thermophysical Properties of Fe-Si and Cu-Pb Melts and Their Effects on Solidification Related Processes. Metals, 2022, 12, 336.	2.3	2
58	Investigating Thermophysical Properties Under Microgravity: A Review. Advanced Engineering Materials, 2021, 23, 2170006.	3.5	1
59	Thermal parameters defined with graph theory approach in synthesized diamonds. Thermal Science, 2022, 26, 2177-2186.	1.1	1
60	Position and Vision of Small- and Medium-Sized Enterprises Boosting Commercialization. , 2015, , 599-612.		0
61	Hydrogen and Electromobility Agenda. , 2015, , 567-582.		0
62	Nanostructured Cement and Concrete. , 2015, , 551-566.		0
63	Creating Tomorrow's Applications through Deeper Collaboration Between Technology and Design. , 2015, , 205-224.		0
64	Multisensor Metrology Bridging the Gap to the Nanometer—New Measurement Requirements and Solutions in Wafer-Based Production. , 2015, , 115-134.		0
65	Quo Vadis Nanotechnology?. , 2015, , 79-94.		0
66	Governmental Strategy for the Support of Nanotechnology in Germany. , 2015, , 19-36.		0
67	Analyses of the surface parameters in polycrystalline diamonds. Serbian Journal of Electrical Engineering, 2020, 17, 111-129.	0.4	0