

Tamás Csanádi

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

2,068
citations

279798

23
h-index

243625

44
g-index

49
all docs

49
docs citations

49
times ranked

1582
citing authors

#	ARTICLE	IF	CITATIONS
1	Processing and Properties of High-Entropy Ultra-High Temperature Carbides. <i>Scientific Reports</i> , 2018, 8, 8609.	3.3	506
2	Microstructure of (Hf-Ta-Zr-Nb)C high-entropy carbide at micro and nano/atomic level. <i>Journal of the European Ceramic Society</i> , 2018, 38, 4303-4307.	5.7	167
3	Orientation-dependent hardness and nanoindentation-induced deformation mechanisms of WC crystals. <i>Acta Materialia</i> , 2015, 83, 397-407.	7.9	107
4	Strain rate sensitivity studies in an ultrafine-grained Al-30wt.% Zn alloy using micro- and nanoindentation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 543, 117-120.	5.6	92
5	Microstructure and strength of severely deformed fcc metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 462, 86-90.	5.6	91
6	Strength enhancement and slip behaviour of high-entropy carbide grains during micro-compression. <i>Scientific Reports</i> , 2019, 9, 10200.	3.3	81
7	Flow processes at low temperatures in ultrafine-grained aluminum. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 434, 326-334.	5.6	70
8	Enhanced Hardness in High-Entropy Carbides through Atomic Randomness. <i>Advanced Theory and Simulations</i> , 2020, 3, 2000111.	2.8	68
9	Deformation characteristics of WC micropillars. <i>Journal of the European Ceramic Society</i> , 2014, 34, 4099-4103.	5.7	61
10	Nanoindentation and tribology of a (Hf-Ta-Zr-Nb-Ti)C high-entropy carbide. <i>Journal of the European Ceramic Society</i> , 2021, 41, 5417-5426.	5.7	60
11	Nanoindentation and tribology of VC, NbC and ZrC refractory carbides. <i>Journal of the European Ceramic Society</i> , 2017, 37, 4371-4377.	5.7	52
12	Nanoindentation derived elastic constants of carbon fibres and their nanostructural based predictions. <i>Carbon</i> , 2017, 119, 314-325.	10.3	41
13	Plastic behavior of fcc metals over a wide range of strain: Macroscopic and microscopic descriptions and their relationship. <i>Acta Materialia</i> , 2011, 59, 2385-2391.	7.9	34
14	Effect of brazing current on microstructure and mechanical behavior of WC-Co/AISI 1020 steel TIG brazed joint. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017, 64, 210-218.	3.8	34
15	Ceramic TiC/a:C protective nanocomposite coatings: Structure and composition versus mechanical properties and tribology. <i>Ceramics International</i> , 2016, 42, 12215-12220.	4.8	33
16	Indentation fatigue of WC grains in WC-Co composite. <i>Journal of the European Ceramic Society</i> , 2014, 34, 3407-3412.	5.7	32
17	Small scale fracture and strength of high-entropy carbide grains during microcantilever bending experiments. <i>Journal of the European Ceramic Society</i> , 2020, 40, 4774-4782.	5.7	32
18	Nanohardness and elastic anisotropy of ZrB ₂ crystals. <i>Journal of the European Ceramic Society</i> , 2016, 36, 239-242.	5.7	31

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19	Synthesis, microstructure, and mechanical properties of novel high entropy carbonitrides. <i>Acta Materialia</i> , 2022, 231, 117887.	7.9	31
20	Plastic behavior of face-centered-cubic metals over a wide range of strain. <i>Acta Materialia</i> , 2010, 58, 5015-5021.	7.9	28
21	Microstructure and mechanical behavior of dissimilar AISI 304L/WC-Co cermet rotary friction welds. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 758, 36-46.	5.6	28
22	Plasticity in ZrB ₂ micropillars induced by anomalous slip activation. <i>Journal of the European Ceramic Society</i> , 2016, 36, 389-394.	5.7	27
23	Investigation of WC decarburization effect on the microstructure and wear behavior of WC-Ni hardfacing under dry and alkaline wet conditions. <i>Materials Chemistry and Physics</i> , 2018, 208, 237-247.	4.0	26
24	Slip activation controlled nanohardness anisotropy of ZrB ₂ ceramic grains. <i>Acta Materialia</i> , 2017, 140, 452-464.	7.9	25
25	Nanoindentation induced deformation anisotropy in β -Si ₃ N ₄ ceramic crystals. <i>Journal of the European Ceramic Society</i> , 2016, 36, 3059-3066.	5.7	23
26	Mechanical Properties of Hard W-C Coating on Steel Substrate Deduced from Nanoindentation and Finite Element Modeling. <i>Experimental Mechanics</i> , 2017, 57, 1057-1069.	2.0	23
27	Deformation and fracture of WC grains and grain boundaries in a WC-Co hardmetal during microcantilever bending tests. <i>International Journal of Refractory Metals and Hard Materials</i> , 2020, 87, 105163.	3.8	22
28	Characterization of stress-strain relationships in Al over a wide range of testing temperatures. <i>International Journal of Plasticity</i> , 2014, 54, 178-192.	8.8	21
29	Investigation of anisotropic mechanical properties of textured $K_2O \cdot 2Nb_2O_5 \cdot 15O$ ceramics via ab-initio calculation and nanoindentation. <i>Journal of the American Ceramic Society</i> , 2018, 101, 5138-5150.	3.8	20
30	Indentation hardness and fatigue of the constituents of WC-Co composites. <i>International Journal of Refractory Metals and Hard Materials</i> , 2015, 49, 178-183.	3.8	19
31	Small-Scale Mechanical Testing of Cemented Carbides from the Micro- to the Nano-Level: A Review. <i>Metals</i> , 2019, 9, 502.	2.3	18
32	The Effect of Grain Boundary Sliding and Strain Rate Sensitivity on the Ductility of Ultrafine-Grained Materials. <i>Materials Science Forum</i> , 0, 667-669, 677-682.	0.3	17
33	Anisotropic nanoscratch resistance of WC grains in WC-Co composite. <i>International Journal of Refractory Metals and Hard Materials</i> , 2015, 51, 188-191.	3.8	16
34	The structural and mechanical characterization of TiC and TiC/Ti thin films grown by DC magnetron sputtering. <i>Journal of the European Ceramic Society</i> , 2018, 38, 2886-2892.	5.7	13
35	Anisotropic slip activation via homogeneous dislocation nucleation in ZrB ₂ ceramic grains during nanoindentation. <i>Scripta Materialia</i> , 2018, 152, 89-93.	5.2	13
36	Hardness anisotropy and active slip systems in a (Hf-Ta-Zr-Nb)C high-entropy carbide during nanoindentation. <i>International Journal of Refractory Metals and Hard Materials</i> , 2021, 100, 105646.	3.8	13

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37	The role of Cr addition on the processing and mechanical properties of high entropy carbides. Journal of the European Ceramic Society, 2022, 42, 5273-5279.	5.7	13
38	Deformation and Fracture of Silicon Nitride Micropillars. Journal of the American Ceramic Society, 2015, 98, 374-377.	3.8	12
39	Anisotropic dislocation nucleation in ZrB ₂ grains and deformation behaviour of constituents of ZrB ₂ -SiC and ZrB ₂ -B ₄ C composites during nanoindentation. Journal of the European Ceramic Society, 2020, 40, 2674-2682.	5.7	11
40	Synthesis and densification of (Zr-Hf-Nb-Ta)C-Co high entropy cermet prepared by pressureless melt infiltration using spark plasma sintering. Journal of Alloys and Compounds, 2022, 900, 163412.	5.5	11
41	Orientation-dependent nanoscratch resistance of zirconium diboride ceramic grains. International Journal of Refractory Metals and Hard Materials, 2017, 65, 45-51.	3.8	10
42	Micro scale fracture strength of grains and grain boundaries in polycrystalline La-doped Si ₃ N ₄ ceramics. Journal of the European Ceramic Society, 2020, 40, 4783-4791.	5.7	9
43	Anomalous slip of ZrB ₂ ceramic grains during in-situ micropillar compression up to 500°C. International Journal of Refractory Metals and Hard Materials, 2019, 80, 270-276.	3.8	7
44	Nanoindentation and AFM Studies on Tungsten Carbide Crystals in WC-Co Hardmetal. Key Engineering Materials, 0, 606, 107-110.	0.4	6
45	Micro-scale fracture toughness of textured alumina ceramics. Journal of the European Ceramic Society, 2023, 43, 2943-2950.	5.7	6
46	Correlation between strain-rate sensitivity and viscous properties derived from dynamic nanoindentation of ultrafine-grained Al [~] Zn alloys. MRS Communications, 2019, 9, 310-314.	1.8	4
47	The Influence of the Third Element on Nano-Mechanical Properties of Iron Borides FeB and Fe ₂ B Formed in Fe-B-X (X = C, Cr, Mn, V, W, Mn + V) Alloys. Materials, 2020, 13, 4155.	2.9	2
48	Synthesis and Mechanical Testing of Calcium Aluminosilicoferrite Crystals with High Alumina Content. Metals, 2019, 9, 906.	2.3	1
49	Effect of alumina and silica content in the calcium aluminosilicoferrite Ca ₂ (Ca,Fe,Mg) ₆ (Fe,Si,Al) ₆ O ₂₀ bonding phase on the strength of iron ore sinter. Materials Chemistry and Physics, 2021, 257, 123733.	4.0	1