

Alexei Vinogradov

List of Publications by Year in descending order

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223
papers

7,892
citations

70961

41
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228
docs citations

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times ranked

4149
citing authors

#	ARTICLE	IF	CITATIONS
1	Extreme grain refinement by severe plastic deformation: A wealth of challenging science. <i>Acta Materialia</i> , 2013, 61, 782-817.	3.8	1,505
2	Structure and properties of ultra-fine grain Cu-Cr-Zr alloy produced by equal-channel angular pressing. <i>Acta Materialia</i> , 2002, 50, 1639-1651.	3.8	293
3	Fatigue behaviour of light alloys with ultrafine grain structure produced by severe plastic deformation: An overview. <i>International Journal of Fatigue</i> , 2010, 32, 898-907.	2.8	235
4	Cyclic behavior of ultrafine-grain titanium produced by severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 318, 163-173.	2.6	186
5	Multiscale Phenomena in Fatigue of Ultra-Fine Grain Materials – an Overview. <i>Materials Transactions</i> , 2001, 42, 74-84.	0.4	177
6	Overview of fatigue performance of Cu processed by severe plastic deformation. <i>Journal of Electronic Materials</i> , 1999, 28, 1038-1044.	1.0	167
7	Enhanced fatigue properties of nanostructured austenitic SUS 316L stainless steel. <i>Acta Materialia</i> , 2011, 59, 7060-7069.	3.8	167
8	Fatigue properties of 5056 Al-Mg alloy produced by equal-channel angular pressing. <i>Scripta Materialia</i> , 1999, 11, 925-934.	0.5	140
9	Revisiting the Considère criterion from the viewpoint of dislocation theory fundamentals. <i>Scripta Materialia</i> , 2014, 76, 37-40.	2.6	138
10	Effect of strain path on structure and mechanical behavior of ultra-fine grain Cu-Cr alloy produced by equal-channel angular pressing. <i>Acta Materialia</i> , 2005, 53, 2181-2192.	3.8	135
11	Corrosion of ultra-fine grained copper fabricated by equal-channel angular pressing. <i>Corrosion Science</i> , 2008, 50, 1215-1220.	3.0	135
12	Probing Shear-Band Initiation in Metallic Glasses. <i>Physical Review Letters</i> , 2011, 107, 185502.	2.9	135
13	Overview of fatigue properties of fine grain 5056 Al-Mg alloy processed by equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 300, 171-182.	2.6	131
14	A real-time approach to acoustic emission clustering. <i>Mechanical Systems and Signal Processing</i> , 2013, 40, 791-804.	4.4	131
15	On the corrosion behaviour of ultra-fine grain copper. <i>Scripta Materialia</i> , 1999, 41, 319-326.	2.6	126
16	Analytical and numerical approaches to modelling severe plastic deformation. <i>Progress in Materials Science</i> , 2018, 95, 172-242.	16.0	126
17	Fatigue limit and crack growth in ultra-fine grain metals produced by severe plastic deformation. <i>Journal of Materials Science</i> , 2007, 42, 1797-1808.	1.7	125
18	Fatigue life of fine-grain Al-Mg-Sc alloys produced by equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 349, 318-326.	2.6	107

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19	Enhanced strength and fatigue life of ultra-fine grain Fe-36Ni Invar alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 355, 277-285.	2.6	105
20	Effect of grain size on the mechanisms of plastic deformation in wrought Mg-Zn-Zr alloy revealed by acoustic emission measurements. <i>Acta Materialia</i> , 2013, 61, 2044-2056.	3.8	104
21	Kinetics of deformation processes in high-alloyed cast transformation-induced plasticity/twinning-induced plasticity steels determined by acoustic emission and scanning electron microscopy: Influence of austenite stability on deformation mechanisms. <i>Acta Materialia</i> , 2013, 61, 2434-2449.	3.8	91
22	Cyclic response of ultrafine-grained copper at constant plastic strain amplitude. <i>Scripta Materialia</i> , 1997, 36, 1345-1351.	2.6	88
23	Atomic force microscopic study on surface morphology of ultra-fine grained materials after tensile testing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 319-321, 862-866.	2.6	87
24	Effect of the loading mode on the evolution of the deformation mechanisms in randomly textured magnesium polycrystals – Comparison of experimental and modeling results. <i>International Journal of Plasticity</i> , 2015, 72, 127-150.	4.1	86
25	Fatigue of Severely Deformed Metals. <i>Advanced Engineering Materials</i> , 2003, 5, 351-358.	1.6	75
26	Controlling strength and ductility: Dislocation-based model of necking instability and its verification for ultrafine grain 316L steel. <i>Acta Materialia</i> , 2016, 106, 295-303.	3.8	66
27	What governs ductility of ultrafine-grained metals? A microstructure based approach to necking instability. <i>Acta Materialia</i> , 2017, 141, 18-28.	3.8	66
28	Dynamic precipitation during cyclic deformation of an underaged Al-Cu alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7410-7416.	2.6	60
29	Microstructure and texture development of copper single crystals deformed by equal-channel angular pressing. <i>Philosophical Magazine Letters</i> , 2004, 84, 235-243.	0.5	57
30	Deformation mechanisms in austenitic TRIP/TWIP steels at room and elevated temperature investigated by acoustic emission and scanning electron microscopy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 597, 183-193.	2.6	57
31	Dislocation structures and crystal orientations of copper single crystals deformed by equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 405, 221-232.	2.6	54
32	Nanostructurization assisted by twinning during equal channel angular pressing of metastable 316L stainless steel. <i>Journal of Materials Science</i> , 2011, 46, 4276-4283.	1.7	52
33	On the reversibility of dislocation slip during cyclic deformation of Al alloys containing shear-resistant particles. <i>Acta Materialia</i> , 2011, 59, 3720-3736.	3.8	51
34	Kinetics of shear banding in a bulk metallic glass monitored by acoustic emission measurements. <i>Philosophical Magazine</i> , 2004, 84, 2147-2166.	0.7	50
35	On the Cyclic Behavior of Ultra-Fine Grained Copper Produced by Equi-Channel Angular Pressing. <i>Materials Science Forum</i> , 1999, 312-314, 593-598.	0.3	48
36	Effect of solid solution hardening and stacking fault energy on plastic flow and acoustic emission in Cu-Ge alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 341, 57-73.	2.6	48

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37	Effect of Chemical Composition on Structure and Properties of Ultrafine Grained Cu-Cr-Zr Alloys Produced by Equal-Channel Angular Pressing. <i>Materials Transactions</i> , 2004, 45, 2187-2191.	0.4	46
38	Mechanical Properties of Ultrafine-Grained Metals: New Challenges and Perspectives. <i>Advanced Engineering Materials</i> , 2015, 17, 1710-1722.	1.6	46
39	Deformation mechanisms underlying tension-compression asymmetry in magnesium alloy ZK60 revealed by acoustic emission monitoring. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 621, 243-251.	2.6	46
40	On the limits of acoustic emission detectability for twinning. <i>Materials Letters</i> , 2016, 183, 417-419.	1.3	45
41	Stress corrosion cracking susceptibility of ultra-fine grain copper produced by equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 318, 122-128.	2.6	42
42	High-strength and ductile glassy-crystal Ni-Cu-Zr-Ti composite exhibiting stress-induced martensitic transformation. <i>Philosophical Magazine</i> , 2009, 89, 2887-2901.	0.7	42
43	Propagation of shear bands in metallic glasses and transition from serrated to non-serrated plastic flow at low temperatures. <i>Acta Materialia</i> , 2010, 58, 6736-6743.	3.8	40
44	Wavelet based approach to signal activity detection and phase picking: Application to acoustic emission. <i>Signal Processing</i> , 2015, 115, 110-119.	2.1	40
45	Acoustic emission during cyclic deformation of ultrafine-grain copper processed by severe plastic deformation. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002, 82, 317-335.	0.8	39
46	On shear band velocity and the detectability of acoustic emission in metallic glasses. <i>Scripta Materialia</i> , 2010, 63, 89-92.	2.6	39
47	Improvement of fatigue strength of a Mg-Zn-Zr alloy by integrated extrusion and equal-channel angular pressing. <i>Scripta Materialia</i> , 2012, 67, 209-212.	2.6	39
48	Structure, texture and strength of Mg-5.8Zn-0.65Zr alloy after hot-to-warm multi-step isothermal forging and isothermal rolling to large strains. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 709, 330-338.	2.6	38
49	Continuous acoustic emission during intermittent plastic flow in β -brass. <i>Scripta Materialia</i> , 2012, 66, 745-748.	2.6	37
50	Spectral analysis of acoustic emission during cyclic deformation of copper single crystals. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2001, 81, 1427-1446.	0.8	36
51	Stochastic dislocation kinetics and fractal structures in deforming metals probed by acoustic emission and surface topography measurements. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	36
52	High Performance Fine-Grained Biodegradable Mg-Zn-Ca Alloys Processed by Severe Plastic Deformation. <i>Metals</i> , 2019, 9, 186.	1.0	36
53	On the Cyclic Response of Ultrafine-Grained Copper. <i>Materials Science Forum</i> , 1998, 269-272, 987-992.	0.3	35
54	Microstructural characteristics of pure gold processed by equal-channel angular pressing. <i>Scripta Materialia</i> , 2007, 56, 947-950.	2.6	35

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55	Quantitative characterization of cleavage and hydrogen-assisted quasi-cleavage fracture surfaces with the use of confocal laser scanning microscopy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 665, 35-46.	2.6	34
56	Evolution of Fractal Structures in Dislocation Ensembles during Plastic Deformation. <i>Physical Review Letters</i> , 2012, 108, 205504.	2.9	33
57	In situ observations of the kinetics of twinningâ€“detwinning and dislocation slip in magnesium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 676, 351-360.	2.6	33
58	Confocal laser scanning microscopy: The technique for quantitative fractographic analysis. <i>Engineering Fracture Mechanics</i> , 2017, 183, 147-158.	2.0	33
59	The Portevinâ€“Le ChÃ¢telier Effect in a Metastable Austenitic Stainless Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 59-74.	1.1	31
60	Phenomenological approach towards modelling the acoustic emission due to plastic deformation in metals. <i>Scripta Materialia</i> , 2019, 170, 172-176.	2.6	31
61	Inhibiting stress corrosion cracking by removing corrosion products from the Mg-Zn-Zr alloy pre-exposed to corrosion solutions. <i>Acta Materialia</i> , 2021, 205, 116570.	3.8	30
62	Acoustic emission in ultra-fine grained copper. <i>Scripta Materialia</i> , 1998, 39, 797-805.	2.6	28
63	Tailoring Microstructure and Properties of Fine Grained Magnesium Alloys by Severe Plastic Deformation. <i>Advanced Engineering Materials</i> , 2018, 20, 1700785.	1.6	28
64	On the corrosion of ZK60 magnesium alloy after severe plastic deformation. <i>Letters on Materials</i> , 2017, 7, 421-427.	0.2	28
65	Cyclic response of fine grain 5056 Alâ€“Mg alloy processed by equal-channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 319-321, 587-591.	2.6	27
66	Influence of alloying with hafnium on the microstructure, texture, and properties of Cuâ€“Cr alloy after equal channel angular pressing. <i>Journal of Materials Science</i> , 2016, 51, 5493-5501.	1.7	27
67	Quasi-cleavage hydrogen-assisted cracking path investigation by fractographic and side surface observations. <i>Engineering Fracture Mechanics</i> , 2019, 214, 177-193.	2.0	26
68	Correlation between Spectral Parameters of Acoustic Emission during Plastic Deformation of Cu and Cu–Al Single and Polycrystals. <i>Materials Transactions, JIM</i> , 1995, 36, 426-431.	0.9	25
69	Influence of the solute concentration on the anelasticity in Mg-Al alloys: A multiple-approach study. <i>Journal of Alloys and Compounds</i> , 2019, 786, 779-790.	2.8	25
70	Application of acoustic emission method for investigation of hydrogen embrittlement mechanism in the low-carbon steel. <i>Journal of Alloys and Compounds</i> , 2015, 645, S460-S463.	2.8	24
71	On the role of hydrogen in stress corrosion cracking of magnesium and its alloys: Gas-analysis study. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 748, 337-346.	2.6	24
72	On the deformation and fracture behaviour of a Zr-based glassy alloy. <i>Philosophical Magazine</i> , 2008, 88, 2979-2987.	0.7	23

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73	Strength Enhancement and Deformation Behavior of Gold after Equal-Channel Angular Pressing. <i>Materials Transactions</i> , 2004, 45, 2200-2208.	0.4	22
74	Fracture behaviour of ultrafine-grained materials under static and cyclic loading. <i>International Journal of Materials Research</i> , 2006, 97, 1566-1570.	0.1	22
75	Fatigue Performance of Mg-Zn-Zr Alloy Processed by Hot Severe Plastic Deformation. <i>Metals</i> , 2015, 5, 2316-2327.	1.0	22
76	Fractographic features of technically pure magnesium, AZ31 and ZK60 alloys subjected to stress corrosion cracking. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 772, 138744.	2.6	22
77	A novel Bayesian approach to acoustic emission data analysis. <i>Ultrasonics</i> , 2016, 72, 89-94.	2.1	21
78	Effect of fracture mode on acoustic emission behavior in the hydrogen embrittled low-alloy steel. <i>Engineering Fracture Mechanics</i> , 2019, 210, 342-357.	2.0	21
79	Acoustic Emission Spectrum and Its Orientation Dependence in Copper Single Crystals. <i>Materials Transactions, JIM</i> , 1995, 36, 496-503.	0.9	20
80	Fatigue Crack Growth and Related Microstructure Evolution in Ultrafine Grain Copper Processed by ECAP. <i>Materials Transactions</i> , 2012, 53, 101-108.	0.4	20
81	On the nature of acoustic emission and internal friction during cyclic deformation of metals. <i>Acta Materialia</i> , 2014, 70, 8-18.	3.8	20
82	Dislocation characteristics of shear bands in metallic glasses. <i>Scripta Materialia</i> , 2017, 130, 138-142.	2.6	20
83	Probing elementary dislocation mechanisms of local plastic deformation by the advanced acoustic emission technique. <i>Scripta Materialia</i> , 2018, 151, 53-56.	2.6	20
84	Formation of Deformation Twins and Related Shear Bands in a Copper Single Crystal Deformed by Equal-Channel Angular Pressing for One Pass at Room Temperature. <i>Materials Transactions</i> , 2009, 50, 1924-1929.	0.4	19
85	The grain size effect on strain hardening and necking instability revisited from the dislocation density evolution approach. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 831, 142330.	2.6	19
86	Deformation and Fracture Behavior of Metallic Glassy Alloys and Glassy-Crystal Composites. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 1504-1510.	1.1	18
87	The Functional Properties of Mg-Zn-X Biodegradable Magnesium Alloys. <i>Materials</i> , 2020, 13, 544.	1.3	18
88	Novel method for in situ damage monitoring during ultrasonic fatigue testing by the advanced acoustic emission technique. <i>International Journal of Fatigue</i> , 2021, 142, 105918.	2.8	18
89	A novel predictive model for multiaxial fatigue in carburized bevel gears. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 2033-2053.	1.7	18
90	The role of structural relaxation in the plastic flow of metallic glasses. <i>Journal of Applied Physics</i> , 1998, 83, 5724-5731.	1.1	17

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91	The Effect of the Initial Orientation on Microstructure Development of Copper Single Crystals Subjected to Equal-Channel Angular Pressing. <i>Materials Science Forum</i> , 2006, 503-504, 799-804.	0.3	17
92	Reversible nature of shear bands in copper single crystals subjected to iterative shear of ECAP in forward and reverse directions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 2602-2609.	2.6	17
93	Effect of strain rate on acoustic emission during hydrogen assisted cracking in high carbon steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 550, 408-417.	2.6	17
94	Acoustic Emission as a Tool for Exploring Deformation Mechanisms in Magnesium and Its Alloys In Situ. <i>Jom</i> , 2016, 68, 3057-3062.	0.9	17
95	A New Method of Low Amplitude Signal Detection and Its Application in Acoustic Emission. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 73.	1.3	17
96	Fracture and Fatigue Resistance of Ultrafine Grain CuCrZr Alloy Produced ECAP. <i>Materials Science Forum</i> , 2006, 503-504, 811-816.	0.3	16
97	Structure and Mechanical Properties of Submicrocrystalline Copper Produced by ECAP to Very High Strains. <i>Materials Science Forum</i> , 2006, 503-504, 971-976.	0.3	15
98	Note: High-speed optical imaging powered by acoustic emission triggering. <i>Review of Scientific Instruments</i> , 2014, 85, 076103.	0.6	15
99	Structure and Properties of Cu Alloys Alloying with Cr and Hf after Equal Channel Angular Pressing. <i>Advanced Materials Research</i> , 0, 922, 651-656.	0.3	15
100	Application of the strain energy density approach in comparing different design solutions for improving the fatigue strength of load carrying shear welded joints. <i>International Journal of Fatigue</i> , 2017, 101, 371-384.	2.8	15
101	Influence of long-term cold climate operation on structure, fatigue durability and impact toughness of 09Mn2Si pipe steel. <i>Engineering Failure Analysis</i> , 2019, 102, 87-101.	1.8	15
102	On the role of pre-exposure time and corrosion products in stress-corrosion cracking of ZK60 and AZ31 magnesium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 806, 140876.	2.6	15
103	Challenges and Accomplishments in Mechanical Testing Instrumented by In Situ Techniques: Infrared Thermography, Digital Image Correlation, and Acoustic Emission. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6718.	1.3	15
104	Crack propagation in $\{110\}$ oriented copper bicrystals with the $\{111\}$ and random boundary. <i>Scripta Metallurgica Et Materialia</i> , 1995, 32, 427-431.	1.0	14
105	Corrosion, corrosion sous contrainte et fatigue du cuivre $\tilde{\text{A}}$ grains ultra-fins $\tilde{\text{A}}$ labor $\tilde{\text{A}}$ par hypercorroyage. <i>Annales De Chimie: Science Des Materiaux</i> , 2002, 27, 65-75.	0.2	14
106	The influence of temporary hydrogenation on ECAP formability and low cycle fatigue life of CP titanium. <i>Journal of Alloys and Compounds</i> , 2011, 509, 2709-2715.	2.8	14
107	Effect of dislocation hardening on monotonic and cyclic strength of severely deformed copper. <i>Philosophical Magazine</i> , 2012, 92, 666-689.	0.7	14
108	The role of notch tip shape and radius on deformation mechanisms of 12Cr1MoV steel under impact loading. Part 1. Energy parameters of fracture. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 586-596.	1.7	14

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109	Influence of energy dissipation at the interphase boundaries on impact fracture behaviour of a plain carbon steel. <i>Theoretical and Applied Fracture Mechanics</i> , 2018, 97, 478-499.	2.1	14
110	Kinetics of cyclically-induced mechanical twinning in $\hat{\Gamma}^3$ -TiAl unveiled by a combination of acoustic emission, neutron diffraction and electron microscopy. <i>Acta Materialia</i> , 2021, 212, 116921.	3.8	14
111	Effect of grain boundary on acoustic emission during plastic deformation of copper-aluminum bicrystals. <i>Acta Materialia</i> , 1996, 44, 2883-2890.	3.8	13
112	The control of texture to improve high-cyclic fatigue performance in copper after equal channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 530, 174-182.	2.6	13
113	Effect of severe plastic deformation on tensile and fatigue properties of fine-grained magnesium alloy ZK60. <i>Journal of Materials Research</i> , 2017, 32, 4362-4374.	1.2	13
114	Title is missing!. <i>Russian Journal of Nondestructive Testing</i> , 2002, 38, 508-516.	0.3	12
115	The Use of Confocal Laser Scanning Microscopy for the 3D Quantitative Characterization of Fracture Surfaces and Cleavage Facets.. <i>Procedia Structural Integrity</i> , 2016, 2, 533-540.	0.3	12
116	Using acoustic emission signal categorization for reconstruction of wear development timeline in tribosystems: Case studies and application examples. <i>Wear</i> , 2018, 410-411, 83-92.	1.5	12
117	Effect of deformation processing of the dilute Mg-1Zn-0.2Ca alloy on the mechanical properties and corrosion rate in a simulated body fluid. <i>Letters on Materials</i> , 2020, 10, 217-222.	0.2	12
118	Cluster Analysis of Acoustic Emissions Measured during Deformation of Duplex Stainless Steels. <i>Materials Transactions</i> , 2013, 54, 532-539.	0.4	11
119	On the Corrosion Fatigue of Magnesium Alloys Aimed at Biomedical Applications: New Insights from the Influence of Testing Frequency and Surface Modification of the Alloy ZK60. <i>Materials</i> , 2022, 15, 567.	1.3	11
120	Fatigue damage evolution in a particulate-reinforced metal matrix composite determined by acoustic emission and compliance method. <i>International Journal of Materials Research</i> , 2002, 93, 719-723.	0.8	10
121	On the role of dislocation hardening in the monotonic and cyclic strength of severely plastically deformed metals. <i>Scripta Materialia</i> , 2009, 61, 817-820.	2.6	10
122	Deformation behavior of Mg-alloy-based composites at different temperatures studied by neutron diffraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 685, 284-293.	2.6	10
123	A Phenomenological Model of Twinning Kinetics. <i>Advanced Engineering Materials</i> , 2017, 19, 1600092.	1.6	10
124	Corrosion Fatigue of Fine Grain Mg-Zn-Zr and Mg-Y-Zn Alloys. <i>Metals</i> , 2018, 8, 20.	1.0	10
125	A Time-Frequency Based Approach for Acoustic Emission Assessment of Sliding Wear. <i>Lubricants</i> , 2020, 8, 52.	1.2	10
126	On subsurface initiated failures in marine bevel gears. <i>Engineering Failure Analysis</i> , 2020, 110, 104415.	1.8	10

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127	<p>Characterization of the functional degradation of a Fe-Mn-Al-Ni single crystal under compression using acoustic emission measurements. <i>Acta Materialia</i>, 2021, 220, 117333.</p>	3.8	10
128	Effect of triple junction on fatigue crack growth in copper and copper-3at.% aluminium tricrystals. <i>Scripta Materialia</i> , 1997, 36, 417-423.	2.6	9
129	On the role of free surface in acoustic emission. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997, 234-236, 587-590.	2.6	9
130	Irreversible thermodynamics approach to plasticity: Dislocation density based constitutive modelling. <i>Materials Science and Technology</i> , 2015, 31, 1664-1672.	0.8	9
131	Evolution of Mechanical Twinning during Cyclic Deformation of Mg-Zn-Ca Alloys. <i>Metals</i> , 2016, 6, 304.	1.0	9
132	Numerical and Experimental Study of Strain Localization in Notched Specimens of a Ductile Steel on Meso- and Macroscales. <i>Advanced Engineering Materials</i> , 2016, 18, 2095-2106.	1.6	9
133	Shear Bands Topology in the Deformed Bulk Metallic Glasses. <i>Metals</i> , 2020, 10, 374.	1.0	9
134	A phenomenological model of twinning-mediated strain hardening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 780, 139194.	2.6	9
135	On the long-term correlations in the twinning and dislocation slip dynamics. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 777, 139091.	2.6	9
136	Deformation behaviour of TWIP steels: Constitutive modelling informed by local and integral experimental methods used in concert. <i>Materials Characterization</i> , 2022, 184, 111667.	1.9	9
137	On Corrosion of Ultra-Fine Grained Copper Produced by Equi-Channel Angular Pressing. <i>Materials Science Forum</i> , 1999, 312-314, 641-646.	0.3	8
138	The role of notch tip shape and radius on deformation mechanisms of 12Cr1MoV steel under impact loading. Part 2. Influence of strain localization on fracture and numeric simulations. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 1838-1853.	1.7	8
139	Investigation of the Microstructure Evolution and Deformation Mechanisms of a Mg-Zn-Zr-RE Twin-Roll-Cast Magnesium Sheet by In-Situ Experimental Techniques. <i>Materials</i> , 2018, 11, 200.	1.3	8
140	Mechanical Twinning is a Correlated Dynamic Process. <i>Scientific Reports</i> , 2019, 9, 5748.	1.6	8
141	Tooth flank fracture – An applied fatigue study of case hardened bevel gears. <i>Engineering Failure Analysis</i> , 2022, 132, 105911.	1.8	8
142	Acoustic Emission in Amorphous Metals. <i>Materials Science Forum</i> , 1996, 210-213, 549-556.	0.3	7
143	Localized and homogeneous plastic flow in bulk glassy Pd ₄₀ Cu ₃₀ Ni ₁₀ P ₂₀ : An acoustic emission study. <i>Journal of Applied Physics</i> , 2013, 113, 153503.	1.1	7
144	Acoustic Emission Assessment of Impending Fracture in a Cyclically Loading Structural Steel. <i>Metals</i> , 2016, 6, 266.	1.0	7

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145	Improving of Acoustic Emission Signal Detection for Fatigue Fracture Monitoring. Procedia Engineering, 2017, 176, 284-290.	1.2	7
146	On the shear band velocity in metallic glasses: A high-speed imaging study. Materials Letters, 2018, 225, 105-108.	1.3	7
147	High strength and fatigue properties of Mg-Zn-Ca alloys after severe plastic deformation. Letters on Materials, 2019, 9, 157-161.	0.2	7
148	Effect of strain rate and corrosion products on pre-exposure stress corrosion cracking in the ZK60 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142304.	2.6	7
149	Crack initiation and propagation in $\sim 110^\circ$ oriented copper single crystals under cyclic deformation. Acta Metallurgica Et Materialia, 1995, 43, 675-680.	1.9	6
150	Acoustic Emission and Strain Localization in Ultra-Fine Grained Copper Produced by Equal-Channel Angular Pressing. Materials Science Forum, 1999, 312-314, 607-614.	0.3	6
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