

# Michael Zaiser

## List of Publications by Year in descending order

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165  
papers

5,817  
citations

76326

40  
h-index

82547

72  
g-index

165  
all docs

165  
docs citations

165  
times ranked

3125  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dislocation Avalanches, Strain Bursts, and the Problem of Plastic Forming at the Micrometer Scale. <i>Science</i> , 2007, 318, 251-254.	12.6	506
2	Spatial correlations and higher-order gradient terms in a continuum description of dislocation dynamics. <i>Acta Materialia</i> , 2003, 51, 1271-1281.	7.9	345
3	Interactions between Polymers and Carbon Nanotubes: A Molecular Dynamics Study. <i>Journal of Physical Chemistry B</i> , 2005, 109, 10009-10014.	2.6	333
4	Scale invariance in plastic flow of crystalline solids. <i>Advances in Physics</i> , 2006, 55, 185-245.	14.4	293
5	Fractal Dislocation Patterning During Plastic Deformation. <i>Physical Review Letters</i> , 1998, 81, 2470-2473.	7.8	148
6	Continuum dislocation dynamics: Towards a physical theory of crystal plasticity. <i>Journal of the Mechanics and Physics of Solids</i> , 2014, 63, 167-178.	4.8	141
7	A three-dimensional continuum theory of dislocation systems: kinematics and mean-field formulation. <i>Philosophical Magazine</i> , 2007, 87, 1261-1282.	1.6	134
8	Oscillatory Modes of Plastic Deformation: Theoretical Concepts. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 199, 267-330.	1.5	133
9	Radiation-Induced Transformation of Graphite to Diamond. <i>Physical Review Letters</i> , 1997, 79, 3680-3683.	7.8	131
10	Statistical dynamics of dislocation systems: The influence of dislocation-dislocation correlations. <i>Physical Review B</i> , 2001, 64, .	3.2	130
11	Dislocation Jamming and Andrade Creep. <i>Physical Review Letters</i> , 2002, 89, 165501.	7.8	128
12	Strain bursts in plastically deforming molybdenum micro- and nanopillars. <i>Philosophical Magazine</i> , 2008, 88, 3861-3874.	1.6	128
13	Anticrack Nucleation as Triggering Mechanism for Snow Slab Avalanches. <i>Science</i> , 2008, 321, 240-243.	12.6	120
14	Avalanches in 2D Dislocation Systems: Plastic Yielding Is Not Depinning. <i>Physical Review Letters</i> , 2014, 112, 235501.	7.8	111
15	Self-Affine Surface Morphology of Plastically Deformed Metals. <i>Physical Review Letters</i> , 2004, 93, 195507.	7.8	99
16	Strain rate dependency of dislocation plasticity. <i>Nature Communications</i> , 2021, 12, 1845.	12.8	97
17	Carbon nanotube/epoxy resin composites using a block copolymer as a dispersing agent. <i>Physica Status Solidi A</i> , 2004, 201, R89-R91.	1.7	88
18	Continuum modeling of dislocation plasticity: Theory, numerical implementation, and validation by discrete dislocation simulations. <i>Journal of Materials Research</i> , 2011, 26, 623-632.	2.6	85

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19	Fractal analysis of deformation-induced dislocation patterns. <i>Acta Materialia</i> , 1999, 47, 2463-2476.	7.9	78
20	Fluctuation phenomena in crystal plasticity—a continuum model. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, P08004-P08004.	2.3	76
21	Depinning transition of dislocation assemblies: Pileups and low-angle grain boundaries. <i>Physical Review B</i> , 2004, 69, .	3.2	73
22	Randomness and slip avalanches in gradient plasticity. <i>International Journal of Plasticity</i> , 2006, 22, 1432-1455.	8.8	73
23	Irradiation-induced transformation of graphite to diamond: A quantitative study. <i>Physical Review B</i> , 2000, 62, 3058-3064.	3.2	59
24	Universal features of amorphous plasticity. <i>Nature Communications</i> , 2017, 8, 15928.	12.8	59
25	Grain boundary effect on nanoindentation: A multiscale discrete dislocation dynamics model. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 126, 117-135.	4.8	57
26	Numerical implementation of a 3D continuum theory of dislocation dynamics and application to micro-bending. <i>Philosophical Magazine</i> , 2010, 90, 3697-3728.	1.6	56
27	Statistical modelling of dislocation systems. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 309-310, 304-315.	5.6	54
28	Scaling properties of dislocation simulations in the similitude regime. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2014, 22, 065012.	2.0	53
29	Thin Film Encapsulation of Organic Solar Cells by Direct Deposition of Polysilazanes from Solution. <i>Advanced Energy Materials</i> , 2019, 9, 1900598.	19.5	52
30	Some steps towards a continuum representation of 3D dislocation systems. <i>Scripta Materialia</i> , 2006, 54, 717-721.	5.2	50
31	Geometrically necessary dislocations and strain gradient plasticity—a dislocation dynamics point of view. <i>Scripta Materialia</i> , 2003, 48, 133-139.	5.2	49
32	A continuum approach to combined $\hat{\gamma}/\hat{l}^3 \propto \epsilon^2$ evolution and dislocation plasticity in Nickel-based superalloys. <i>International Journal of Plasticity</i> , 2017, 95, 142-162.	8.8	49
33	Acceleration and localization of subcritical crack growth in a natural composite material. <i>Physical Review E</i> , 2014, 90, 052401.	2.1	47
34	Dislocation patterning in a two-dimensional continuum theory of dislocations. <i>Physical Review B</i> , 2016, 93, .	3.2	47
35	Slip avalanches in crystal plasticity: scaling of the avalanche cut-off. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P04013-P04013.	2.3	46
36	Local density approximation for the energy functional of three-dimensional dislocation systems. <i>Physical Review B</i> , 2015, 92, .	3.2	46

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37	Effects of twin boundary orientation on plasticity of bicrystalline copper micropillars: A discrete dislocation dynamics simulation study. <i>Acta Materialia</i> , 2019, 176, 289-296.	7.9	45
38	Size-dependent plasticity of hetero-structured laminates: A constitutive model considering deformation heterogeneities. <i>International Journal of Plasticity</i> , 2021, 145, 103063.	8.8	45
39	Depinning of a dislocation: the influence of long-range interactions. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 309-310, 348-351.	5.6	44
40	Propagating compaction bands in confined compression of snow. <i>Nature Physics</i> , 2017, 13, 272-275.	16.7	44
41	Dislocation dynamics and work hardening of fractal dislocation cell structures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 272, 443-454.	5.6	40
42	Pattern formation in a minimal model of continuum dislocation plasticity. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2015, 23, 065005.	2.0	40
43	Dislocation motion in a random solid solution. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002, 82, 2869-2883.	0.6	39
44	The flow stress of fractal dislocation arrangements. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 270, 299-307.	5.6	36
45	From systems of discrete dislocations to a continuous field description: stresses and averaging aspects. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 085006.	2.0	36
46	Evading strength and ductility trade-off in an inverse nacre structured magnesium matrix nanocomposite. <i>Acta Materialia</i> , 2022, 228, 117730.	7.9	36
47	Chapter 56 Long-range internal stresses, dislocation patterning and work-hardening in crystal plasticity. <i>Dislocations in Solids</i> , 2002, 11, 1-100.	1.6	32
48	The effects of snow variability on slab avalanche release. <i>Cold Regions Science and Technology</i> , 2004, 40, 229-242.	3.5	31
49	From mesoscopic heterogeneity of slip to macroscopic fluctuations of stress and strain. <i>Acta Materialia</i> , 1997, 45, 1067-1075.	7.9	30
50	Modelling size effects using 3D density-based dislocation dynamics. <i>Philosophical Magazine</i> , 2007, 87, 1283-1306.	1.6	29
51	Dislocation depinning transition in a dispersion-strengthened steel. <i>Physical Review B</i> , 2008, 78, .	3.2	28
52	Continuum representation of systems of dislocation lines: A general method for deriving closed-form evolution equations. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 95, 575-601.	4.8	28
53	Instability of dislocation fluxes in a single slip: Deterministic and stochastic models of dislocation patterning. <i>Physical Review B</i> , 2018, 98, .	3.2	28
54	A unified description of strain-rate softening instabilities. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997, 238, 399-406.	5.6	27

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55	The study of self-organization processes in crystals by high-voltage electron microscopy. <i>Ultramicroscopy</i> , 1991, 39, 342-354.	1.9	26
56	Internal length scale and grain boundary yield strength in gradient models of polycrystal plasticity: How do they relate to the dislocation microstructure?. <i>Journal of Materials Research</i> , 2014, 29, 2116-2128.	2.6	26
57	Size effect in the tensile fracture of single-walled carbon nanotubes with defects. <i>Nanotechnology</i> , 2007, 18, 155708.	2.6	25
58	Failure initiation in snow stratifications containing weak layers: Nucleation of whumpfs and slab avalanches. <i>Cold Regions Science and Technology</i> , 2008, 52, 385-400.	3.5	24
59	Mechanical properties and microstructure of single-wall carbon nanotube/elastomeric epoxy composites with block copolymers. <i>Materials Letters</i> , 2014, 125, 116-119.	2.6	24
60	Annihilation and sources in continuum dislocation dynamics. <i>Materials Theory</i> , 2018, 2, .	4.3	24
61	A mesoscopic approach to radiation-induced defect aggregation in alkali halides stimulated by the elastic interaction of mobile Frenkel defects. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1994, 70, 313-327.	0.6	23
62	On the relations between strain and strain-rate softening phenomena in some metallic materials: a computational study. <i>Computational Materials Science</i> , 1999, 15, 35-49.	3.0	23
63	Stochastic and deterministic aspects of strain localization during cyclic plastic deformation. <i>Acta Materialia</i> , 1998, 46, 4143-4151.	7.9	22
64	Size and disorder effects in elasticity of cellular structures: From discrete models to continuum representations. <i>International Journal of Solids and Structures</i> , 2018, 146, 97-116.	2.7	22
65	Properties of dislocation lines in crystals with strong atomic-scale disorder. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 740-741, 285-294.	5.6	22
66	Prediction of creep failure time using machine learning. <i>Scientific Reports</i> , 2020, 10, 16910.	3.3	22
67	The tension-compression behavior of gradient structured materials: A deformation-mechanism-based strain gradient plasticity model. <i>Mechanics of Materials</i> , 2021, 159, 103912.	3.2	22
68	Strain localization and strain propagation in collapsible solid foams. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 567, 38-45.	5.6	21
69	Avalanche Behavior in Creep Failure of Disordered Materials. <i>Physical Review Letters</i> , 2018, 121, 125501.	7.8	21
70	Size-dependent yield stress in ultrafine-grained polycrystals: A multiscale discrete dislocation dynamics study. <i>International Journal of Plasticity</i> , 2022, 149, 103183.	8.8	21
71	Comparison of closure approximations for continuous dislocation dynamics. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1651, 1.	0.1	18
72	Avalanche precursors of failure in hierarchical fuse networks. <i>Scientific Reports</i> , 2018, 8, 12090.	3.3	18

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73	An analytical model for fracture nucleation in collapsible stratifications. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	17
74	A generalized comosite approach to the flow stress and strain hardening of crystals containing heterogeneous dislocation distributions. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1998, 249, 145-151.	5.6	16
75	Cell structure formation in a two-dimensional density-based dislocation dynamics model. <i>Materials Theory</i> , 2021, 5, .	4.3	16
76	Avalanches and Slip Patterning in Plastic Deformation. <i>Journal of the Mechanical Behavior of Materials</i> , 2003, 14, 255-270.	1.8	15
77	Deformation patterns and surface morphology in a minimal model of amorphous plasticity. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P03014.	2.3	15
78	Disorder is good for you: the influence of local disorder on strain localization and ductility of strain softening materials. <i>International Journal of Fracture</i> , 2017, 205, 139-150.	2.2	15
79	Digital strategies for structured and architected materials design. <i>APL Materials</i> , 2021, 9, .	5.1	15
80	The energetics and interactions of random dislocation walls. <i>Philosophical Magazine Letters</i> , 2013, 93, 387-394.	1.2	14
81	Growth of a Vortex Polycrystal in Type II Superconductors. <i>Physical Review Letters</i> , 2004, 92, 257004.	7.8	13
82	Statistical heterogeneity of plastic deformation: An investigation based on surface profilometry. <i>Acta Materialia</i> , 2010, 58, 4859-4870.	7.9	13
83	Rupture of graphene sheets with randomly distributed defects. <i>AIMS Materials Science</i> , 2016, 3, 1340-1349.	1.4	13
84	Pinning of extended dislocations in atomically disordered crystals. <i>Acta Materialia</i> , 2022, 236, 118095.	7.9	13
85	Misfit Dislocation Patterning in Thin Films. <i>Physica Status Solidi (B): Basic Research</i> , 1998, 209, 295-304.	1.5	12
86	Nickel coated carbon nanotubes in aluminum matrix composites: a multiscale simulation study. <i>European Physical Journal B</i> , 2019, 92, 1.	1.5	12
87	Random aspects of macroscopic plastic deformation. <i>Philosophical Magazine Letters</i> , 1996, 73, 369-376.	1.2	11
88	Dislocation Patterns in Crystalline Solids – Phenomenology and Modelling. , 2004, , 215-238.		11
89	Interplay of basal shear fracture and slab rupture in slab avalanche release. <i>Cold Regions Science and Technology</i> , 2007, 49, 26-38.	3.5	11
90	Scale-free statistics of plasticity-induced surface steps on KCl single crystals. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, L04001-L04001.	2.3	11

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91	Statistical aspects of microplasticity: experiments, discrete dislocation simulations and stochastic continuum models. <i>Journal of the Mechanical Behavior of Materials</i> , 2013, 22, 89-100.	1.8	11
92	Statistical analysis and stochastic dislocation-based modeling of microplasticity. <i>Journal of the Mechanical Behavior of Materials</i> , 2015, 24, 105-113.	1.8	11
93	Determining Cosserat constants of 2D cellular solids from beam models. <i>Materials Theory</i> , 2018, 2, .	4.3	11
94	Cyclic-loading microstructure-property relations from a mesoscale perspective: An example of single crystal Nickel-based superalloys. <i>Journal of Alloys and Compounds</i> , 2019, 770, 964-971.	5.5	11
95	Microplasticity and yielding in crystals with heterogeneous dislocation distribution. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019, 27, 074003.	2.0	11
96	Thermodynamic considerations on a class of dislocation-based constitutive models. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 159, 104735.	4.8	11
97	Self-Organization of Defect Structures under Low-Temperature Irradiation-A Theory of Stacking-Fault-Tetrahedron Lattices. <i>Solid State Phenomena</i> , 1992, 23-24, 221-236.	0.3	10
98	Some exactly solvable models for the statistical evolution of internal variables during plastic deformation. <i>Probabilistic Engineering Mechanics</i> , 2000, 15, 131-138.	2.7	10
99	Fractal Dislocation Patterning in Plastically Deformed NaCl Polycrystals. <i>Physica Status Solidi A</i> , 2001, 185, R4-R5.	1.7	10
100	Statistical dynamics of dislocations in simple models of plastic deformation: Phase transitions and related phenomena. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 400-401, 191-198.	5.6	10
101	Discrete dislocation dynamics simulation and continuum modeling of plastic boundary layers in tricrystal micropillars. <i>IOP Conference Series: Materials Science and Engineering</i> , 2009, 3, 012025.	0.6	10
102	Snow Mechanics Near the Ductile-Brittle Transition: Compressive Stick-Slip and Snow Microquakes. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085491.	4.0	10
103	Spatio-temporal aspects of low-temperature thermomechanical instabilities: A model based on dislocation dynamics. <i>Applied Physics A: Solids and Surfaces</i> , 1993, 57, 143-151.	1.4	9
104	Dislocation Transport and Line Length Increase in Averaged Descriptions of Dislocations. , 2009, , .		9
105	Network analysis predicts failure of materials and structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 16666-16668.	7.1	9
106	Slab avalanche release viewed as interface fracture in a random medium. <i>Annals of Glaciology</i> , 2004, 38, 9-14.	1.4	8
107	Stress and strain fluctuations in plastic deformation of crystals with disordered microstructure. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2015, 2015, P08009.	2.3	8
108	Stochastic Crystal Plasticity Models with Internal Variables: Application to Slip Channel Formation in Irradiated Metals. <i>Advanced Engineering Materials</i> , 2020, 22, 1901208.	3.5	8

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109	Beam network model for fracture of materials with hierarchical microstructure. <i>International Journal of Fracture</i> , 2021, 227, 243-257.	2.2	8
110	Stability criteria for plastic deformation at low temperatures. <i>Scripta Metallurgica Et Materialia</i> , 1995, 32, 1261-1268.	1.0	7
111	The role of density fluctuations in the relaxation of random dislocation systems. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P03036.	2.3	7
112	Role of weakest links and system-size scaling in multiscale modeling of stochastic plasticity. <i>Physical Review B</i> , 2017, 95, .	3.2	7
113	Statistical dynamics of early creep stages in disordered materials. <i>European Physical Journal B</i> , 2019, 92, 1.	1.5	7
114	Effects of elasticity and dislocation core structure on the interaction of dislocations with embedded CNTs in aluminium: An atomistic simulation study. <i>Materialia</i> , 2022, 21, 101347.	2.7	7
115	A mesoscopic approach to point-defect clustering in solids during irradiation. <i>Applied Physics A: Solids and Surfaces</i> , 1993, 57, 117-121.	1.4	6
116	The influence of strain-rate fluctuations on the stability of low-temperature plastic deformation. <i>Acta Materialia</i> , 1997, 45, 1695-1704.	7.9	6
117	Shear Bands and Damage Clusters in Slope Failure - A One-Dimensional Model. <i>Journal of the Mechanical Behavior of Materials</i> , 2004, 15, 185-202.	1.8	6
118	Roughening and pinning of interface cracks in shear delamination of thin films. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P11009.	2.3	6
119	Emergent patterns of localized damage as a precursor to catastrophic failure in a random fuse network. <i>Physical Review E</i> , 2013, 87, 042811.	2.1	6
120	Avalanche dynamics in hierarchical fiber bundles. <i>Physical Review E</i> , 2019, 100, 022133.	2.1	6
121	Edge betweenness centrality as a failure predictor in network models of structurally disordered materials. <i>Scientific Reports</i> , 2022, 12, .	3.3	6
122	A theory of the formation of slip channels in cold-worked bcc metals. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1996, 74, 287-298.	0.6	5
123	Microstructural Slip Localization in Strain Softening Materials. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 203, 29-42.	1.5	5
124	RAS as a remote sensor of plastic deformation in metals. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 3997-4002.	0.8	5
125	Density-based modelling of dislocations. <i>Philosophical Magazine</i> , 2007, 87, 1159-1160.	1.6	5
126	Nucleation of interfacial shear cracks in thin films on disordered substrates. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P02047.	2.3	5



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127	Theory of radiation-induced self-organization of defect structures. Applied Physics A: Solids and Surfaces, 1994, 58, 3-10.	1.4	4
128	A model of the formation of strain bursts during cyclic deformation. Scripta Metallurgica Et Materialia, 1994, 31, 1587-1592.	1.0	4
129	Theory of diffusion-controlled defect aggregation under irradiation: A comparative study of three basic approaches. Radiation Effects and Defects in Solids, 1995, 136, 209-215.	1.2	4
130	Depinning transition of a dislocation line in ferritic oxide strengthened steels. Journal of Nuclear Materials, 2009, 385, 284-287.	2.7	4
131	Modeling microbending of thin films through discrete dislocation dynamics, continuum dislocation theory, and gradient plasticity. Journal of Materials Research, 2012, 27, 612-618.	2.6	4
132	Graph theoretical approaches for the characterization of damage in hierarchical materials. European Physical Journal B, 2019, 92, 1.	1.5	4
133	A Beam Network Model Approach to Strength Optimization of Disordered Fibrous Materials. Advanced Engineering Materials, 2020, 22, 1901013.	3.5	4
134	Multilayer Structures of Graphene and Pt Nanoparticles: A Multiscale Computational Study. Advanced Engineering Materials, 2020, 22, 2000207.	3.5	4
135	Statistical theory of slip channels in body-centered cubic metals. Applied Physics A: Materials Science and Processing, 1997, 64, 391-401.	2.3	3
136	Expansion of Quasi-Discrete Dislocation Loops in the Context of a 3D Continuum Theory of Curved Dislocations. , 2009, , .		3
137	Some Limitations of Dislocation Walls as Models for Plast Boundary Layers. , 2011, , .		3
138	Damage growth in fibre bundle models with localized load sharing and environmentally-assisted ageing. Journal of Physics: Conference Series, 2013, 410, 012064.	0.4	3
139	Crack phantoms: localized damage correlations and failure in network models of disordered materials. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P08029.	2.3	3
140	Pinning of dislocations in disordered alloys: effects of dislocation orientation. Materials Theory, 2022, 6, .	4.3	3
141	Statistical aspects of interface adhesion and detachment of hierarchically patterned structures. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 023301.	2.3	3
142	Atomistic aspects of load transfer and fracture in CNT-reinforced aluminium. Materialia, 2022, 22, 101376.	2.7	3
143	Radiation-Induced Self-Organization of Defect Structures in Metals. Materials Science Forum, 1993, 123-125, 687-700.	0.3	2
144	Nucleation And Non-Linear Strain Localization During Cyclic Plastic Deformation. Journal of the Mechanical Behavior of Materials, 2007, 18, 69-79.	1.8	2

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145	Fracture Toughness of Snow: The Influence of Layered Microstructure. Journal of the Mechanical Behavior of Materials, 2007, 18, 195-215.	1.8	2
146	Der Knall im Lawinenhang. Die Ursache von Schneebrettlawinen. Physik in Unserer Zeit, 2010, 41, 31-34.	0.0	2
147	Statistical Dislocation Dynamics – Multiplication and Long Range Interactions. Materials Research Society Symposia Proceedings, 2003, 779, 571.	0.1	2
148	Dislocation dynamics in cyclic plastic deformation. Applied Physics A: Materials Science and Processing, 1995, 60, 497-503.	2.3	1
149	Mithradham RE centre: Environment and RE promotion in India. Refocus, 2002, 3, 26-29.	0.2	1
150	Size scaling of strength in thin film delamination. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P02024.	2.3	1
151	Higher Order Continuum Modelling for Predicting the Mechanical Behaviour of Solid Foams. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 315-316.	0.2	1
152	Exaptation in Physics and Materials Science. The Frontiers Collection, 2020, , 35-45.	0.2	1
153	Theory of radiation-induced self-organization of defect structures. Applied Physics A: Solids and Surfaces, 1994, 58, 11-19.	1.4	0
154	Dislocation dynamics in cyclic plastic deformation. Applied Physics A: Materials Science and Processing, 1995, 60, 589-595.	2.3	0
155	Symposium on Modelling Complex Materials: Materials Behavior below the Scale of the Representative Volume Element. , 2009, , .		0
156	Interface-Dislocation Interaction on Sub-micron Scales. , 2009, , .		0
157	The Connection between Size Effects and Strain Bursts in Microscale Plasticity. , 2009, , .		0
158	Crack Nucleation in Thin Films on Disordered Substrates. , 2009, , .		0
159	Continuum Dislocation Dynamics (CDD) Modeling of Thin Film Micro-Plasticity. , 2009, , .		0
160	Application of a 3D-Continuum Theory of Dislocations to a Problems of Constrained Plastic Flow: Microbending of a Thin Film. Materials Research Society Symposia Proceedings, 2009, 1224, 1.	0.1	0
161	Preface of the Symposium on Discrete and Continuum Modeling of Dislocation Systems. , 2011, , .		0
162	Modelling Thin Film Microbending: A Comparative Study of Three Different Approaches. , 2011, , .		0

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163	Plasticity of Crystals with Disordered Microstructure: Scale-dependent Fluctuations of Stress and Strain. Materials Research Society Symposia Proceedings, 2014, 1651, 1.	0.1	0
164	Pinning and propagation of interface cracks in slope failure. , 2004, , 435-446.		0
165	Dislocation dynamics in cyclic plastic deformation II. Strain bursts. Applied Physics A: Materials Science and Processing, 1995, 60, 589-595.	2.3	0