

Elias C Aifantis

List of Publications by Year in descending order

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255
papers

12,075
citations

28190

55
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104
g-index

262
all docs

262
docs citations

262
times ranked

3498
citing authors

#	ARTICLE	IF	CITATIONS
1	On the role of gradients in the localization of deformation and fracture. <i>International Journal of Engineering Science</i> , 1992, 30, 1279-1299.	2.7	887
2	The physics of plastic deformation. <i>International Journal of Plasticity</i> , 1987, 3, 211-247.	4.1	855
3	Gradient elasticity in statics and dynamics: An overview of formulations, length scale identification procedures, finite element implementations and new results. <i>International Journal of Solids and Structures</i> , 2011, 48, 1962-1990.	1.3	684
4	Update on a class of gradient theories. <i>Mechanics of Materials</i> , 2003, 35, 259-280.	1.7	442
5	A simple approach to solve boundary-value problems in gradient elasticity. <i>Acta Mechanica</i> , 1993, 101, 59-68.	1.1	371
6	A gradient approach to localization of deformation. I. Hyperelastic materials. <i>Journal of Elasticity</i> , 1986, 16, 225-237.	0.9	333
7	On the theory of consolidation with double porosity. <i>International Journal of Engineering Science</i> , 1982, 20, 1009-1035.	2.7	298
8	On the structure of the mode III crack-tip in gradient elasticity. <i>Scripta Metallurgica Et Materialia</i> , 1992, 26, 319-324.	1.0	277
9	A gradient flow theory of plasticity for granular materials. <i>Acta Mechanica</i> , 1991, 87, 197-217.	1.1	240
10	Observation and measurement of grain rotation and plastic strain in nanostructured metal thin films. <i>Scripta Materialia</i> , 1995, 5, 689-697.	0.5	229
11	On the gradient approach – Relation to Eringen’s nonlocal theory. <i>International Journal of Engineering Science</i> , 2011, 49, 1367-1377.	2.7	201
12	Dislocation patterning in fatigued metals as a result of dynamical instabilities. <i>Journal of Applied Physics</i> , 1985, 58, 688-691.	1.1	200
13	Gradient elasticity and flexural wave dispersion in carbon nanotubes. <i>Physical Review B</i> , 2009, 80, .	1.1	174
14	ON THE THEORY OF DIFFUSION IN MEDIA WITH DOUBLE DIFFUSIVITY I. BASIC MATHEMATICAL RESULTS. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 1980, 33, 1-21.	0.5	167
15	On a theory of nonlocal elasticity of bi-Helmholtz type and some applications. <i>International Journal of Solids and Structures</i> , 2006, 43, 1404-1421.	1.3	156
16	A simple, mixtures-based model for the grain size dependence of strength in nanophase metals. <i>Scripta Materialia</i> , 1995, 5, 441-448.	0.5	155
17	Dislocations in second strain gradient elasticity. <i>International Journal of Solids and Structures</i> , 2006, 43, 1787-1817.	1.3	154
18	On the gradient-dependent theory of plasticity and shear banding. <i>Acta Mechanica</i> , 1992, 92, 209-225.	1.1	149

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19	Some links between recent gradient thermo-elasto-plasticity theories and the thermomechanics of generalized continua. <i>International Journal of Solids and Structures</i> , 2010, 47, 3367-3376.	1.3	143
20	On the formation and stability of dislocation patternsâ€”I: One-dimensional considerations. <i>International Journal of Engineering Science</i> , 1985, 23, 1351-1358.	2.7	131
21	On the â€œAnomalousâ€ hardness of nanocrystalline materials. <i>Scripta Materialia</i> , 1998, 10, 1111-1118.	0.5	123
22	On the theory of consolidation with double porosityâ€”II. <i>International Journal of Engineering Science</i> , 1986, 24, 1697-1716.	2.7	118
23	Gradient elasticity with surface energy: mode-III crack problem. <i>International Journal of Solids and Structures</i> , 1996, 33, 4531-4559.	1.3	118
24	On the dynamical origin of dislocation patterns. <i>Materials Science and Engineering</i> , 1986, 81, 563-574.	0.1	109
25	Exploring the applicability of gradient elasticity to certain micro/nano reliability problems. <i>Microsystem Technologies</i> , 2009, 15, 109-115.	1.2	106
26	Gradient Effects at Macro, Micro, and Nano Scales. <i>Journal of the Mechanical Behavior of Materials</i> , 1994, 5, 355-375.	0.7	103
27	Pattern formation in plasticity. <i>International Journal of Engineering Science</i> , 1995, 33, 2161-2178.	2.7	103
28	On the concept of relative and plastic spins and its implications to large deformation theories. Part I: Hypoelasticity and vertex-type plasticity. <i>Acta Mechanica</i> , 1988, 75, 15-33.	1.1	102
29	Self-Affine Surface Morphology of Plastically Deformed Metals. <i>Physical Review Letters</i> , 2004, 93, 195507.	2.9	99
30	Internal Length Gradient (ILG) Material Mechanics Across Scales and Disciplines. <i>Advances in Applied Mechanics</i> , 2016, 49, 1-110.	1.4	98
31	On a proposal for a continuum with microstructure. <i>Acta Mechanica</i> , 1982, 45, 91-121.	1.1	97
32	On dislocations in a special class of generalized elasticity. <i>Physica Status Solidi (B): Basic Research</i> , 2005, 242, 2365-2390.	0.7	96
33	The mechanical theory of fluid interfaces and Maxwell's rule. <i>Journal of Colloid and Interface Science</i> , 1983, 96, 517-529.	5.0	94
34	A model for finite-deformation plasticity. <i>Acta Mechanica</i> , 1987, 69, 97-117.	1.1	86
35	Stress concentrations in fractured compact bone simulated with a special class of anisotropic gradient elasticity. <i>International Journal of Solids and Structures</i> , 2010, 47, 1099-1107.	1.3	86
36	Title is missing!. <i>International Journal of Fracture</i> , 2002, 117, 347-358.	1.1	82

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37	Gradient Elasticity Theories in Statics and Dynamics - A Unification of Approaches. <i>International Journal of Fracture</i> , 2006, 139, 297-304.	1.1	80
38	A new interpretation of diffusion in high-diffusivity paths – a continuum approach. <i>Acta Metallurgica</i> , 1979, 27, 683-691.	2.1	75
39	A damage model for ductile metals. <i>Nuclear Engineering and Design</i> , 1989, 116, 355-362.	0.8	75
40	Gradient dependent dilatancy and its implications in shear banding and liquefaction. <i>Ingenieur-Archiv</i> , 1989, 59, 197-208.	0.6	75
41	Introductory remarks to the viewpoint set on propagative plastic instabilities. <i>Scripta Metallurgica Et Materialia</i> , 1993, 29, 1147-1150.	1.0	73
42	Randomness and slip avalanches in gradient plasticity. <i>International Journal of Plasticity</i> , 2006, 22, 1432-1455.	4.1	73
43	Finite element analysis with staggered gradient elasticity. <i>Computers and Structures</i> , 2008, 86, 1266-1279.	2.4	72
44	On the formation and stability of dislocation patterns – II: Two-dimensional considerations. <i>International Journal of Engineering Science</i> , 1985, 23, 1359-1364.	2.7	69
45	On the structure and width of shear bands. <i>Scripta Metallurgica</i> , 1988, 22, 703-708.	1.2	67
46	Equilibrium solutions in the mechanical theory of fluid microstructures. <i>Journal of Colloid and Interface Science</i> , 1983, 96, 530-547.	5.0	65
47	On the concept of relative and plastic spins and its implications to large deformation theories. Part II: Anisotropic hardening plasticity. <i>Acta Mechanica</i> , 1988, 75, 35-56.	1.1	64
48	Cracks in gradient elastic bodies with surface energy. <i>International Journal of Fracture</i> , 1996, 79, 107-119.	1.1	63
49	The Representative Volume Size in Static and Dynamic Micro-Macro Transitions. <i>International Journal of Fracture</i> , 2005, 135, L3-L9.	1.1	63
50	Gradient Nanomechanics: Applications to Deformation, Fracture, and Diffusion in Nanopolycrystals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 2985-2998.	1.1	62
51	A gradient-dependent model for the Portevin-Le Chatelier effect. <i>Scripta Metallurgica</i> , 1988, 22, 1331-1336.	1.2	61
52	Effect of cooperative grain boundary sliding and migration on crack growth in nanocrystalline solids. <i>Acta Materialia</i> , 2011, 59, 5023-5031.	3.8	61
53	Special rotational deformation as a toughening mechanism in nanocrystalline solids. <i>Journal of the Mechanics and Physics of Solids</i> , 2010, 58, 1088-1099.	2.3	59
54	On the formation and stability of dislocation patterns – III: Three-dimensional considerations. <i>International Journal of Engineering Science</i> , 1985, 23, 1365-1372.	2.7	56

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55	Recent Developments in Gradient Plasticityâ€”Part I: Formulation and Size Effects. Journal of Engineering Materials and Technology, Transactions of the ASME, 2002, 124, 352-357.	0.8	56
56	Dislocations and Disclinations in Gradient Elasticity. Physica Status Solidi (B): Basic Research, 1999, 214, 245-284.	0.7	55
57	On dislocation patterning: Multiple slip effects in the rate equation approach. International Journal of Plasticity, 2006, 22, 1486-1505.	4.1	55
58	On the theory of stress-assisted diffusion, II. Acta Mechanica, 1983, 47, 117-151.	1.1	54
59	A double porosity model for acoustic wave propagation in fractured-porous rock. International Journal of Engineering Science, 1984, 22, 1209-1217.	2.7	54
60	The influence of microstructure-induced gradients on the localization of deformation in viscoplastic materials. Acta Mechanica, 1991, 89, 217-231.	1.1	53
61	Gradient material mechanics: Perspectives and Prospects. Acta Mechanica, 2014, 225, 999-1012.	1.1	53
62	Multiscale Analysis of Multiple Damage Mechanisms Coupled with Inelastic Behavior of Composite Materials. Journal of Engineering Mechanics - ASCE, 2001, 127, 636-645.	1.6	52
63	Vibrations of Double-Walled Carbon Nanotubes With Different Boundary Conditions Between Inner and Outer Tubes. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	1.1	50
64	Non-standard extensions of gradient elasticity: Fractional non-locality, memory and fractality. Communications in Nonlinear Science and Numerical Simulation, 2015, 22, 197-227.	1.7	50
65	Non-linearity, periodicity and patterning in plasticity and fracture. International Journal of Non-Linear Mechanics, 1996, 31, 797-809.	1.4	49
66	Geometrically necessary dislocations and strain gradient plasticityâ€”a dislocation dynamics point of view. Scripta Materialia, 2003, 48, 133-139.	2.6	49
67	A proposal for continuum with microstructure. Mechanics Research Communications, 1978, 5, 139-145.	1.0	48
68	Strain Gradient Crystal Plasticity: Thermomechanical Formulations and Applications. Journal of the Mechanical Behavior of Materials, 2002, 13, 219-232.	0.7	47
69	Eshelbyâ€™s inclusion problem in the gradient theory of elasticity: Applications to composite materials. International Journal of Engineering Science, 2011, 49, 1517-1525.	2.7	45
70	On the geometry of slip and spin in finite plastic deformation. International Journal of Plasticity, 1991, 7, 141-160.	4.1	44
71	A new formulation and Γ_0 -implementation of dynamically consistent gradient elasticity. International Journal for Numerical Methods in Engineering, 2007, 72, 111-126.	1.5	44
72	ON THE THEORY OF DIFFUSION IN MEDIA WITH DOUBLE DIFFUSIVITY II. BOUNDARY-VALUE PROBLEMS. Quarterly Journal of Mechanics and Applied Mathematics, 1980, 33, 23-42.	0.5	43

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73	Longitudinal vibrations of a beam: A gradient elasticity approach. <i>Mechanics Research Communications</i> , 1996, 23, 35-40.	1.0	43
74	Remarks on media with microstructures. <i>International Journal of Engineering Science</i> , 1984, 22, 961-968.	2.7	39
75	Gradient elasticity and dispersive wave propagation: Model motivation and length scale identification procedures in concrete and composite laminates. <i>International Journal of Solids and Structures</i> , 2019, 158, 176-190.	1.3	39
76	Quasilinear Evolution Equations in Nonclassical Diffusion. <i>SIAM Journal on Mathematical Analysis</i> , 1988, 19, 110-120.	0.9	38
77	On the microscopic origin of the plastic spin. <i>Acta Mechanica</i> , 1990, 82, 31-48.	1.1	38
78	On the role of microstructure in the behavior of soils: Effects of higher order gradients and internal inertia. <i>Mechanics of Materials</i> , 1994, 18, 151-158.	1.7	38
79	Deformation and failure of bulk nanograined and ultrafine-grained materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 503, 190-197.	2.6	38
80	The asymptotic solution of gradient elasticity for mode III. <i>International Journal of Fracture</i> , 1995, 71, R27-R32.	1.1	37
81	On scale invariance in anisotropic plasticity, gradient plasticity and gradient elasticity. <i>International Journal of Engineering Science</i> , 2009, 47, 1089-1099.	2.7	36
82	Continuum basis for diffusion in regions with multiple diffusivity. <i>Journal of Applied Physics</i> , 1979, 50, 1334-1338.	1.1	35
83	Hydraulic Behavior and Contaminant Transport in Multiple Porosity Media. <i>Transport in Porous Media</i> , 2001, 42, 265-292.	1.2	33
84	On the direct interactions between heat transfer, mass transport and chemical processes within gradient elasticity. <i>European Journal of Mechanics, A/Solids</i> , 2007, 26, 68-87.	2.1	33
85	On the theory of stress-assisted diffusion, I. <i>Acta Mechanica</i> , 1982, 45, 273-296.	1.1	32
86	Instability of gradient-dependent elastoviscoplastic model for clay and strain localization analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 183, 67-86.	3.4	30
87	Existence and uniqueness in nonclassical diffusion. <i>Quarterly of Applied Mathematics</i> , 1987, 45, 549-560.	0.5	28
88	A refined nonlocal thermoelasticity theory for the vibration of nanobeams induced by ramp-type heating. <i>Applied Mathematics and Computation</i> , 2014, 248, 169-183.	1.4	28
89	State space approach for the vibration of nanobeams based on the nonlocal thermoelasticity theory without energy dissipation. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 2921-2931.	0.7	28
90	Anisotropic yield and plastic flow of polycrystalline solids. <i>International Journal of Plasticity</i> , 1996, 12, 1221-1240.	4.1	27

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91	Strain gradient elasticity theory for antiplane shear cracks. Part I: Oscillatory displacements. <i>Theoretical and Applied Fracture Mechanics</i> , 2000, 34, 243-252.	2.1	27
92	Strain gradient and wavelet interpretation of size effects in yield and strength. <i>Mechanics of Materials</i> , 2003, 35, 733-745.	1.7	27
93	Dislocation patterning in fatigued metals: Labyrinth structures and rotational effects. <i>International Journal of Engineering Science</i> , 1986, 24, 1789-1798.	2.7	25
94	On the kinetic and diffusional nature of linear defects. <i>Scripta Metallurgica Et Materialia</i> , 1993, 29, 707-712.	1.0	25
95	A note on gradient elasticity and nonsingular crack fields. <i>Journal of the Mechanical Behavior of Materials</i> , 2012, 20, 103-105.	0.7	25
96	A Concise Review of Gradient Models in Mechanics and Physics. <i>Frontiers in Physics</i> , 2020, 7, .	1.0	24
97	Microscale size effects on the electromechanical coupling in piezoelectric material for anti-plane problem. <i>Smart Materials and Structures</i> , 2014, 23, 125043.	1.8	23
98	Further remarks on the implications of steady-state stress-assisted diffusion on environmental cracking. <i>Scripta Metallurgica</i> , 1982, 16, 1059-1064.	1.2	22
99	Stochastic and deterministic aspects of strain localization during cyclic plastic deformation. <i>Acta Materialia</i> , 1998, 46, 4143-4151.	3.8	22
100	Multiscale modeling of polymer materials using a statistics-based micromechanics approach. <i>Acta Materialia</i> , 2009, 57, 525-532.	3.8	22
101	On the role of micro-inertia in enriched continuum mechanics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017, 473, 20160722.	1.0	22
102	A theoretical review of stress relaxation testing. <i>Materials Science and Engineering</i> , 1975, 21, 107-113.	0.1	20
103	On Barenblatt's problem. <i>International Journal of Engineering Science</i> , 1980, 18, 857-867.	2.7	20
104	Heat extraction from hot dry rocks. <i>Mechanics Research Communications</i> , 1980, 7, 165-170.	1.0	20
105	Strain gradient elasticity theory for antiplane shear cracks. Part II: Monotonic displacements. <i>Theoretical and Applied Fracture Mechanics</i> , 2000, 34, 253-265.	2.1	20
106	On fractional and fractal formulations of gradient linear and nonlinear elasticity. <i>Acta Mechanica</i> , 2019, 230, 2043-2070.	1.1	20
107	Further comments on the problem of heat extraction from hot dry rocks. <i>Mechanics Research Communications</i> , 1980, 7, 219-226.	1.0	19
108	On anisotropic finite deformation plasticity part I. A two-back stress model. <i>Acta Mechanica</i> , 1994, 106, 55-72.	1.1	19

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109	A note on the problem of shear localization during chip formation in orthogonal machining. <i>Journal of Materials Engineering and Performance</i> , 1997, 6, 25-26.	1.2	19
110	On non-singular GRADELA crack fields. <i>Theoretical and Applied Mechanics Letters</i> , 2014, 4, 051005.	1.3	19
111	Nonlocal Thermoelasticity Theory for Thermal-Shock Nanobeams with Temperature-Dependent Thermal Conductivity. <i>Journal of Thermal Stresses</i> , 2015, 38, 1049-1067.	1.1	19
112	Strain gradient and electric field gradient effects in piezoelectric cantilever beams. <i>Journal of the Mechanical Behavior of Materials</i> , 2015, 24, 121-127.	0.7	19
113	Dislocations and disclinations in the gradient theory of elasticity. <i>Physics of the Solid State</i> , 1999, 41, 1980-1988.	0.2	18
114	On the stochastic interpretation of gradient-dependent constitutive equations. <i>European Journal of Mechanics, A/Solids</i> , 2002, 21, 589-596.	2.1	18
115	Disclinations in nanocrystalline materials: Manifestation of the relay mechanism of plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 503, 62-67.	2.6	18
116	Diffusion of a perfect fluid in a linear elastic stress field. <i>Mechanics Research Communications</i> , 1976, 3, 245-250.	1.0	17
117	On the size and shape of the process zone. <i>Engineering Fracture Mechanics</i> , 1987, 26, 491-503.	2.0	17
118	Recent Developments in Gradient Plasticity—Part II: Plastic Heterogeneity and Wavelets. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2002, 124, 358-364.	0.8	17
119	Numerical simulation of interface crack in thin films. <i>International Journal of Fracture</i> , 1999, 98, 195-207.	1.1	16
120	On some applications of gradient elasticity to composite materials. <i>Composite Structures</i> , 2001, 53, 189-197.	3.1	16
121	Analysis of serrations and shear bands fractality in UFGs. <i>Journal of the Mechanical Behavior of Materials</i> , 2015, 24, 1-9.	0.7	16
122	Size effects on magnetoelectric response of multiferroic composite with inhomogeneities. <i>Physica B: Condensed Matter</i> , 2015, 478, 36-42.	1.3	16
123	Gaseous diffusion in a stressed-thermoelastic solid. Part I: The thermomechanical formulation. <i>Acta Mechanica</i> , 1977, 28, 1-24.	1.1	15
124	The method of caustics in environmental cracking. <i>Engineering Fracture Mechanics</i> , 1986, 23, 423-430.	2.0	15
125	On the length of crack jump during subcritical growth. <i>Engineering Fracture Mechanics</i> , 1987, 26, 505-518.	2.0	15
126	Dislocation-based gradient elastic fracture mechanics for in-plane analysis of cracks. <i>International Journal of Fracture</i> , 2016, 202, 93-110.	1.1	15

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127	Stochastically forced dislocation density distribution in plastic deformation. <i>Physical Review E</i> , 2016, 94, 022139.	0.8	15
128	Thermodynamic coupling between gradient elasticity and a Cahn-Hilliard type of diffusion: size-dependent spinodal gaps. <i>Continuum Mechanics and Thermodynamics</i> , 2017, 29, 1181-1194.	1.4	15
129	Characterization of yield surfaces using balanced biaxial tests of cruciform plate specimens. <i>Scripta Metallurgica Et Materialia</i> , 1993, 28, 617-622.	1.0	14
130	Gaseous diffusion in a stressed-thermoelastic solid. Part II: Thermodynamic structure and transport theory. <i>Acta Mechanica</i> , 1977, 28, 25-47.	1.1	13
131	Environmental cracking under mixed-mode conditions. <i>Engineering Fracture Mechanics</i> , 1986, 23, 431-439.	2.0	13
132	Deformation vs. flow and wavelet-based models of gradient plasticity: Examples of axial symmetry. <i>International Journal of Plasticity</i> , 2006, 22, 1456-1485.	4.1	13
133	Unconstrained and Cauchy-Born-constrained atomistic systems: deformational and configurational mechanics. <i>Archive of Applied Mechanics</i> , 2011, 81, 669-684.	1.2	13
134	Structural transformations in nano- and microobjects triggered by disclinations. <i>Journal of Materials Research</i> , 2012, 27, 545-551.	1.2	13
135	Free transverse vibrations of a double-walled carbon nanotube: gradient and internal inertia effects. <i>Acta Mechanica Solida Sinica</i> , 2014, 27, 345-352.	1.0	13
136	A gradient elastic homogenisation model for brick masonry. <i>Engineering Structures</i> , 2020, 208, 110311.	2.6	13
137	Gradient Plasticity. , 2001, , 281-297.		13
138	On the theory of diffusion in linear viscoelastic media. <i>Acta Mechanica</i> , 1982, 44, 259-298.	1.1	12
139	Misfit Dislocation Patterning in Thin Films. <i>Physica Status Solidi (B): Basic Research</i> , 1998, 209, 295-304.	0.7	12
140	Toward fractional gradient elasticity. <i>Journal of the Mechanical Behavior of Materials</i> , 2014, 23, 41-46.	0.7	12
141	Gradient Extension of Classical Material Models: From Nuclear & Condensed Matter Scales to Earth & Cosmological Scales. <i>Springer Tracts in Mechanical Engineering</i> , 2021, , 417-452.	0.1	12
142	A preliminary study of stress-assisted fluid penetration in ceramic bricks. <i>Journal of the European Ceramic Society</i> , 2000, 20, 489-495.	2.8	11
143	Nonsingular dislocation and crack fields: implications to small volumes. <i>Microsystem Technologies</i> , 2009, 15, 117-121.	1.2	11
144	Elastic bending analysis of bilayered beams containing a gradient layer by an alternative two-variable method. <i>Composite Structures</i> , 2011, 93, 3130-3130.	3.1	11

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145	Diffusion of a gas in a linear elastic solid. <i>Acta Mechanica</i> , 1978, 29, 169-184.	1.1	10
146	A new form of exact solutions for mode I, II, III crack problems and implications. <i>Engineering Fracture Mechanics</i> , 1978, 10, 95-108.	2.0	10
147	On the thermodynamic theory of fluid interfaces: Infinite intervals, equilibrium solutions, and minimizers. <i>Journal of Colloid and Interface Science</i> , 1986, 111, 119-132.	5.0	10
148	Possible Role of Deformation-Induced Point Defects in Dislocation Patterning. <i>Physica Status Solidi (B): Basic Research</i> , 1990, 157, 117-128.	0.7	10
149	Some exactly solvable models for the statistical evolution of internal variables during plastic deformation. <i>Probabilistic Engineering Mechanics</i> , 2000, 15, 131-138.	1.3	10
150	Edge dislocations near phase boundaries in the gradient theory of elasticity. <i>Physics of the Solid State</i> , 2000, 42, 1659-1667.	0.2	10
151	Gradient effects in micro-/nanoindentation. <i>Materials Science and Technology</i> , 2012, 28, 1072-1078.	0.8	10
152	Portevin-Le Chatelier effect and Tsallis nonextensive statistics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2015, 438, 509-518.	1.2	10
153	On the Effect of Strain Gradient on Adiabatic Shear Banding. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 4459-4467.	1.1	10
154	Gradient-enriched finite element methodology for axisymmetric problems. <i>Acta Mechanica</i> , 2017, 228, 1423-1444.	1.1	10
155	Generation of circular prismatic dislocation loops in decahedral small particles. <i>Scripta Materialia</i> , 2018, 146, 77-81.	2.6	10
156	CuO nanowhiskers: Preparation, structure features, properties, and applications. <i>Materials Science and Technology</i> , 2018, 34, 2126-2135.	0.8	10
157	Gradient elasticity and size effect for the borehole problem. <i>Acta Mechanica</i> , 2018, 229, 3305-3318.	1.1	10
158	Hydrogen-assisted cracking studies of 4340 steel by using the optical method of caustics. <i>Engineering Fracture Mechanics</i> , 1989, 33, 913-925.	2.0	9
159	Thermoviscoplastic shear instability and higher order strain gradients. <i>International Journal of Engineering Science</i> , 1991, 29, 1639-1650.	2.7	9
160	On finite deformation plasticity with directional softening. <i>Acta Mechanica</i> , 1993, 101, 69-80.	1.1	9
161	On anisotropic finite deformation plasticity Part II. A two-component model. <i>Acta Mechanica</i> , 1994, 106, 73-85.	1.1	9
162	Application of double diffusivity model to superconductors. <i>Journal of Materials Processing Technology</i> , 2001, 108, 185-187.	3.1	9

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163	Scale-dependent constitutive relations and the role of scale on nominal properties. <i>European Journal of Mechanics, A/Solids</i> , 2001, 20, 925-936.	2.1	9
164	Gradient elasticity applied to a crack. <i>Journal of the Mechanical Behavior of Materials</i> , 2013, 22, 193-201.	0.7	9
165	Capturing wave dispersion in heterogeneous and microstructured materials through a three-length-scale gradient elasticity formulation. <i>Journal of the Mechanical Behavior of Materials</i> , 2018, 27, .	0.7	9
166	On the role of the process zone in hydrogen assisted cracking ^{II} . Threshold conditions. <i>Engineering Fracture Mechanics</i> , 1988, 31, 9-18.	2.0	8
167	Stand-off positions and nonuniform distributions of misfit dislocations in heterophase systems. <i>Physica Status Solidi A</i> , 1995, 151, 281-290.	1.7	8
168	Loading rate dependence of stick-slip fracture in polymers. <i>Mechanics Research Communications</i> , 1997, 24, 115-121.	1.0	8
169	Crack growth resistance curves and stick-slip fracture instabilities. <i>Mechanics Research Communications</i> , 1997, 24, 123-130.	1.0	8
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