Cun-Fa Gao

List of Publications by Year
in descending order

117 papers	1,143 citations	361388 20 h-index	501174 28 g-index
118 all docs	118 docs citations	118 times ranked	715 citing authors

#	Article	IF	Citations
1	Strain Engineering of Metal Halide Perovskites on Coupling Anisotropic Behaviors. Advanced Functional Materials, 2021, 31, 2006243.	14.9	71
2	Two-Dimensional Problem of a Crack in Thermoelectric Materials. Journal of Thermal Stresses, 2015, 38, 325-337.	2.0	64
3	Mapping the elastic properties of two-dimensional MoS2 via bimodal atomic force microscopy and finite element simulation. Npj Computational Materials, 2018, 4, .	8.7	61
4	Multiple Neutral Axes in Bending of a Multiple-Layer Beam With Extremely Different Elastic Properties. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	2.2	41
5	Stress concentration in a finite functionally graded material plate. Science China: Physics, Mechanics and Astronomy, 2012, 55, 1263-1271.	5.1	36
6	An exact and explicit treatment of an elliptic hole problem in thermopiezoelectric media. International Journal of Solids and Structures, 2002, 39, 2665-2685.	2.7	35
7	Uniform stress fields inside multiple inclusions in an elastic infinite plane under plane deformation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140933.	2.1	35
8	Theoretical analysis on elastic buckling of nanobeams based on stress-driven nonlocal integral model. Applied Mathematics and Mechanics (English Edition), 2020, 41, 207-232.	3.6	35
9	Uniform strain fields inside multiple inclusions in an elastic infinite plane under anti-plane shear. Mathematics and Mechanics of Solids, 2017, 22, 114-128.	2.4	31
10	Theoretical analysis for static bending of circular Euler–Bernoulli beam using local and Eringen's nonlocal integral mixed model. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2019, 99, e201800329.	1.6	31
11	Reduction of the stress concentration around an elliptic hole by using a functionally graded layer. Acta Mechanica, 2016, 227, 2427-2437.	2.1	28
12	Surface tension-induced stress concentration around a nanosized hole of arbitrary shape in an elastic half-plane. Meccanica, 2014, 49, 2847-2859.	2.0	27
13	Effect of flexoelectricity on piezotronic responses of a piezoelectric semiconductor bilayer. Journal of Applied Physics, 2021, 129, .	2.5	27
14	Green's functions for the plane problem in a half-infinite piezoelectric medium. Mechanics Research Communications, 1998, 25, 69-74.	1.8	26
15	Theoretical Analysis of Free Vibration of Microbeams under Different Boundary Conditions Using Stress-Driven Nonlocal Integral Model. International Journal of Structural Stability and Dynamics, 2020, 20, 2050040.	2.4	25
16	The effective thermoelectric properties of core–shell composites. Acta Mechanica, 2014, 225, 1211-1222.	2.1	23
17	Non-circular nano-inclusions with interface effects that achieve uniform internal strain fields in an elastic plane under anti-plane shear. Archive of Applied Mechanics, 2016, 86, 1295-1309.	2.2	23
18	Spectral element method for vibration analysis of three-dimensional pipes conveying fluid. International Journal of Mechanics and Materials in Design, 2019, 15, 345-360.	3.0	23

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19	Uniqueness of Neutral Elastic Circular Nano-Inhomogeneities in Antiplane Shear and Plane Deformations. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	2.2	22
20	Exact and asymptotic bending analysis of microbeams under different boundary conditions using stress–derived nonlocal integral model. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2020, 100, e201900148.	1.6	22
21	Analytical solutions of static bending of curved Timoshenko microbeams using Eringen's two–phase local/nonlocal integral model. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2020, 100, e201900207.	1.6	22
22	Temperature and thermal stress around an elliptic functional defect in a thermoelectric material. Mechanics of Materials, 2019, 130, 58-64.	3.2	21
23	An arc-shaped crack in nonlinear fully coupled thermoelectric materials. Acta Mechanica, 2018, 229, 1989-2008.	2.1	20
24	Semi-analytic solution of Eringen's two-phase local/nonlocal model for Euler-Bernoulli beam with axial force. Applied Mathematics and Mechanics (English Edition), 2018, 39, 1805-1824.	3.6	18
25	Static bending and vibration analysis of piezoelectric semiconductor beams considering surface effects. Journal of Vibration Engineering and Technologies, 2021, 9, 1789-1800.	2.2	18
26	Prediction of the Stress Field and Effective Shear Modulus of Composites Containing Periodic Inclusions Incorporating Interface Effects in Anti-plane Shear. Journal of Elasticity, 2016, 125, 217-230.	1.9	17
27	Non-elliptical inclusions that achieve uniform internal strain fields in an elastic half-plane. Acta Mechanica, 2015, 226, 3845-3863.	2.1	16
28	Closed–form solutions for a circular inhomogeneity in nonlinearly coupled thermoelectric materials. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2019, 99, e201800240.	1.6	14
29	Dynamic stress analysis of a functionally graded material plate with a circular hole. Meccanica, 2013, 48, 91-101.	2.0	13
30	Perturbation solution of two arbitrarily-shaped holes in a piezoelectric solid. International Journal of Mechanical Sciences, 2014, 88, 37-45.	6.7	13
31	Layer-dependent and light-tunable surface potential of two-dimensional indium selenide (InSe) flakes. Rare Metals, 2020, 39, 1356-1363.	7.1	12
32	Trivalent Ni oxidation controlled through regulating lithium content to minimize perovskite interfacial recombination. Rare Metals, 2022, 41, 96-105.	7.1	12
33	A Novel Design of Multistable Metastructure With Nonuniform Cross Section. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	2.2	12
34	A new method for the evaluation of the effective properties of composites containing unidirectional periodic nanofibers. Archive of Applied Mechanics, 2017, 87, 647-665.	2.2	11
35	Progressive thermal stress distribution around a crack under Joule heating in orthotropic materials. Applied Mathematical Modelling, 2020, 86, 271-293.	4.2	11
36	Theoretical analysis for static bending of Euler–Bernoulli using different nonlocal gradient models. Mechanics of Advanced Materials and Structures, 2021, 28, 1965-1977.	2.6	11

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37	Interaction of collinear interface cracks between dissimilar one‐dimensional hexagonal piezoelectric quasicrystals. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2021, 101, e202000360.	1.6	11
38	Surface tension-induced interfacial stresses around a nanoscale inclusion of arbitrary shape. Zeitschrift Fur Angewandte Mathematik Und Physik, 2017, 68, 1.	1.4	9
39	A Nanoscale Hole of Arbitrary Shape with Surface Elasticity. Journal of Elasticity, 2019, 136, 123-135.	1.9	9
40	Phase diagrams classification based on machine learning and phenomenological investigation of physical properties in K1₋ₓNaxNbO3 thin films. Journal of Applied Physics, 2020, 127, 154101.	2.5	9
41	Analysis of a hollow piezoelectric semiconductor composite cylinder under a thermal loading. Mechanics of Advanced Materials and Structures, 2023, 30, 2037-2046.	2.6	9
42	The interaction between a screw dislocation and a rigid wedge inhomogeneity with an elastic circular inhomogeneity at the tip. Meccanica, 2012, 47, 1097-1102.	2.0	8
43	Determination of effective thermal expansion coefficients of unidirectional fibrous nanocomposites. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	1.4	8
44	Uniform strain fields inside periodic inclusions incorporating interface effects in anti-plane shear. Acta Mechanica, 2016, 227, 2795-2803.	2.1	8
45	The influence of an arbitrarily shaped hole on the effective properties of a thermoelectric material. Acta Mechanica, 2019, 230, 3693-3702.	2.1	8
46	Fracture Analyses of Soft Materials With Hard Inclusion. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	2.2	7
47	The effects of surface elasticity on the thermal stress around a circular nano-hole in a thermoelectric material. Mathematics and Mechanics of Solids, 2019, 24, 3156-3166.	2.4	7
48	Periodic inclusions with uniform internal hydrostatic stress in an infinite elastic plane. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2016, 96, 1374-1380.	1.6	6
49	Phenomenological analysis of elastocaloric effect in ferroelectric poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 262 T	2.5	6
50	A study on the Gurtin–Murdoch model for spherical solids with surface tension. Zeitschrift Fur Angewandte Mathematik Und Physik, 2021, 72, 1.	1.4	6
51	The temperature-dependent thermoelastic problem of an elliptic inhomogeneity embedded in an infinite matrix. International Journal of Engineering Science, 2021, 166, 103523.	5.0	6
52	Axisymmetric indentation of an elastic thin plate by a rigid sphere revisited. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 1436-1446.	1.6	5
53	Asymmetric indentation of an elastic beam by a rigid cylinder. Zeitschrift Fur Angewandte Mathematik Und Physik, 2018, 69, 1.	1.4	5
54	The effect of interfacial thermal resistance on interface crack subjected to remote heat flux. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	1.4	5

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55	In-plane stress analysis of two nanoscale holes under surface tension. Archive of Applied Mechanics, 2020, 90, 1363-1372.	2.2	5
56	Electro-elastic fields in an elliptic piezoelectric plane with an elliptic hole or a crack of arbitrary location. Meccanica, 2018, 53, 347-357.	2.0	4
57	2D Micromechanical Modeling and Simulation of Ta-Particles Reinforced Bulk Metallic Glass Matrix Composite. Applied Sciences (Switzerland), 2018, 8, 2192.	2.5	4
58	Effects of thermal stress on the failure of soft matter with sharp–hard inclusion. Acta Mechanica, 2019, 230, 1843-1853.	2.1	4
59	Periodic interfacial cracks in dissimilar piezoelectric materials under the influence of Maxwell stress. Meccanica, 2020, 55, 113-124.	2.0	4
60	Analysis of a hollow fiber in thermoelectric materials considering interfacial thermal resistance. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2021, 101, e202000158.	1.6	4
61	Mechanical Behaviors of the Origami-Inspired Horseshoe-Shaped Solar Arrays. Micromachines, 2022, 13, 732.	2.9	4
62	Thermoelectroelastic Solution for Edge Cracks Originating from an Elliptical Hole in a Piezoelectric Solid. Journal of Thermal Stresses, 2012, 35, 138-156.	2.0	3
63	Collinear crack problems in a soft ferromagnetic solid. International Journal of Applied Electromagnetics and Mechanics, 2012, 40, 113-132.	0.6	3
64	Thermal stresses around a circular inclusion with functionally graded interphase in a finite matrix. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1927-1933.	5.1	3
65	Theoretical consideration of a microcontinuum model of graphene. AIP Advances, 2016, 6, .	1.3	3
66	A generalized thermodynamic frame of magneto-electric-caloric coupling effects of single phase epitaxial multiferroic thin films. Ferroelectrics, 2018, 531, 186-195.	0.6	3
67	Effect of Maxwell stress on a moving crack with polarization saturation region in ferroelectric solid. Meccanica, 2018, 53, 3037-3045.	2.0	3
68	Green's functions for soft materials containing a hard line inhomogeneity. Mathematics and Mechanics of Solids, 2019, 24, 3614-3631.	2.4	3
69	Electric and heat conduction across an elliptic cavity in an anisotropic medium. Mathematics and Mechanics of Solids, 2019, 24, 3279-3294.	2.4	3
70	Electrically permeable and thermally insulated collinear cracks in thermoelectric materials. Acta Mechanica, 2019, 230, 1275-1288.	2.1	3
71	Analysis of an anti-plane crack in a one-dimensional orthorhombic quasicrystal strip. Mathematics and Mechanics of Solids, 2022, 27, 2467-2479.	2.4	3
72	Stress concentration around a circular hole in a functionally graded material finite plate. , 2011, , .		2

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73	Replies to the comments on "Faber series method for plane problems of an arbitrarily shaped inclusion [1]". Acta Mechanica, 2012, 223, 1561-1563.	2.1	2
74	Analysis of Thermal Stress in a Functionally Graded Coating on a Parabolic Substrate. Journal of Thermal Stresses, 2013, 36, 1141-1155.	2.0	2
75	Analyses of postbuckling in stretchable arrays of nanostructures for wide-band tunable plasmonics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150632.	2.1	2
76	Evolutions of stress and microstructure in multilayer ferroelectric actuators under different temperature environments. Journal of Thermal Stresses, 2016, 39, 1471-1482.	2.0	2
77	Influence of hole shape and surface elasticity on anti-plane shear properties of porous structures with periodic holes. Acta Mechanica, 2017, 228, 2519-2531.	2.1	2
78	Physical properties in polydomain c/a/c/a phase PbTiO3 ferroelectric thick films: effect of thermal stresses. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	2
79	Effects of electric/magnetic impact on the transient fracture of interface crack in piezoelectric-piezomagnetic sandwich structure: anti-plane case. Applied Mathematics and Mechanics (English Edition), 2020, 41, 139-156.	3.6	2
80	Failure modes of soft materials with sharp-hard inhomogeneity under heat flux. Mechanics of Advanced Materials and Structures, 2021, 28, 990-998.	2.6	2
81	Stress concentration due to a functionally graded ring around an elliptic hole in an infinite plate. , 2014, , .		1
82	Uniform strain field inside a non-circular inhomogeneity with homogeneously imperfect interface in anisotropic anti-plane shear. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	1.4	1
83	The influence of maxwell stress on the periodical cracks in piezoelectric material. , 2017, , .		1
84	Effect of porous and segregation defects on the mechanical properties of magnesium alloy. , 2017, , .		1
85	An analytic model of microfluidic system triggered by thermal expansion. Biomedical Microdevices, 2019, 21, 4.	2.8	1
86	The thermoelastic problem of a stretchable rigid line inhomogeneity at soft bimaterial interface. Journal of Thermal Stresses, 2020, 43, 1030-1039.	2.0	1
87	Axisymmetric vibration of a soft elastic rod with surface tension-induced residual stress. Acta Mechanica, 2022, 233, 2405-2413.	2.1	1
88	Solution of an elliptic inclusion in an electrostrictive solid. , 2011, , .		0
89	The interaction between a screw dislocation and a circular piezoelectric inhomogeneity with a crack. , 2011, , .		0
90	A finite magnetoelectroelastic plate with a cavity under mechanical-electric-magnetic loading. , 2011, , .		0

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91	An impermeable circular-arc crack in an electrostrictive material. , 2012, , .		0
92	Scattering problem of the interface circular cavity in piezoelectric media. , 2012, , .		0
93	Magneto-electro-elastic laminated plates with an elliptical hole subjected to out-of-plane bending moments. , 2012, , .		0
94	Stress intensity factors for a piezoelectric plate with a semi-permeable crack under uniform thermal. , 2013, , .		0
95	Stress analysis of electrostrictive material with two circular holes. , 2013, , .		0
96	A two-dimensional study of an elliptic piezoelectric plate compressed diametrically. , 2015, , .		0
97	Anti-plane problems of a piezoelectric inclusion with an elliptic hole or a crack in an infinite piezoelectric matrix. , 2015, , .		0
98	Solution of an orthotropic elliptic plate with an elliptic hole or crack. , 2016, , .		0
99	The influence of Maxwell stress on the fracture mechanics of 2D piezoelectric materials based on the PS model. , 2016, , .		0
100	The influence of Maxwell stresses on a moving crack in piezoelectric materials. , 2016, , .		0
101	A study of interfacial property of composite based on the shear stress criterion with cyclic loading process. , 2016, , .		0
102	Analysis of a circular arc-crack in thermoelectric media. , 2016, , .		0
103	Analysis of elliptical hole edge-cracks in piezoelectric materials with the extended finite element method. , 2016, , .		0
104	A study of single piezoelectric fiber frictional sliding during loading and unloading process. , 2017, , .		0
105	The influence of electrostatic force on the moving interfacial crack between dissimilar piezoelectric materials. , 2017, , .		0
106	Solution of an infinite piezoelectric matrix containing a circular inclusion with an elliptic hole. , 2017, , .		0
107	Temperature Controlled Self-Folding Design Using Thermo-Sensitive Hydrogel Pnipam. , 2019, , .		0
108	Mechanics Design of a Zigzag Structured Substrate for Stretchable Solar Arrays. , 2019, , .		0

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109	The Effect of Interfacial Thermal Resistance on A Sub-Interface Crack Under Thermal Loading. , 2019, , .		0
110	Fracture of Soft Materials with Irregular Shape Hard Inclusions. , 2019, , .		0
111	Periodically spaced collinear cracks in a soft ferromagnetic material under a uniform magnetic field. Acta Mechanica, 2020, 231, 1919-1931.	2.1	0
112	Influence of non-uniformly periodic distribution of fibers in composites on the stress field and effective shear modulus under anti-plane shear. Acta Mechanica, 2021, 232, 515-531.	2.1	0
113	Fracture behavior of an interface crack in a magnetoelectric sandwich structure under electric field: Effects of the poling directions. Journal of Intelligent Material Systems and Structures, 0, , 1045389X2110722.	2.5	0
114	Analysis of a mode-I crack in a one-dimensional orthorhombic quasicrystal strip. Mathematics and Mechanics of Solids, 0, , 108128652210917.	2.4	0
115	Interface crack between dissimilar thin-films with surface effect. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, .	1.4	0
116	Square indentation on a soft elastomer layer with finite thickness. Acta Mechanica, 0, , .	2.1	0
117	Special Issue on Theoretical and Applied Mechanics of Functional Materials and Structures. Advanced Engineering Materials, 2022, 24, .	3.5	0