

Xiao-Fan Gou

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Interpretation of Compressive Strain Causing Critical Current Degradation of Bi2212 Round Wires. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-8.	1.1	1
2	Impacts of Voids and Bridges in Bi2212 Multifilamentary Superconducting Wires on its Electrical Behavior. Journal of Superconductivity and Novel Magnetism, 2021, 34, 667-674.	0.8	0
3	Improvement of the Delamination Strength of Yttrium Barium Copper Oxide (YBCO) Films by the Hamaker Method. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-7.	1.1	3
4	Diffusivity of cement paste via a continuum-based microstructure and hydration model: Influence of cement grain shape. Cement and Concrete Composites, 2021, 118, 103920.	4.6	12
5	Effect of Uniaxial Strain on Oxygen Diffusion in Grain Boundaries of Polycrystalline YBa ₂ Cu ₃ O ₇ -Coated Conductors. Journal of Superconductivity and Novel Magnetism, 2021, 34, 2259-2269.	0.8	5
6	A highly accurate interatomic potential for LaMnO ₃ perovskites with temperature-dependence of structure and thermal properties. Computational Materials Science, 2021, 193, 110406.	1.4	4
7	Short-Circuit Characteristics of Superconducting Permanent Magnet Generators for 10 MW Wind Turbines. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.1	4
8	Barrier or easy-flow channel: The role of grain boundary acting on vortex motion in type-II superconductors*. Chinese Physics B, 2021, 30, 097402.	0.7	3
9	Uncovering and elimination of the natural separation of interacting molecules of standard REBCO crystals, a panacea for improvement of its delamination strength. Engineering Failure Analysis, 2020, 107, 104196.	1.8	4
10	Rapid preparation of a Nafion/Ag NW composite film and its humidity sensing effect. RSC Advances, 2020, 10, 27447-27455.	1.7	9
11	Role of the Complex Interface Between Bi ₂ Sr ₂ CaCu ₂ O _x Filaments and the Ag Matrix in the Mechanical and Electrical Behaviors of Composite Round Wires. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-11.	1.1	3
12	Design Considerations and Short-Circuit Characteristics of Fully Superconducting Wind Turbine Generators. , 2020, , .		1
13	Fabrication stacking faults and its influence on the delamination behavior of SuperPower (SCS4050Å®) tapes. Engineering Failure Analysis, 2020, 115, 104609.	1.8	6
14	Inspection of fabrication defects in REBCO coated conductors from various industrial manufacturers under similar fabrication conditions using the DEM approach. Physica C: Superconductivity and Its Applications, 2020, 574, 1353664.	0.6	7
15	Thermal conductivity of aligned CNT-polyethylene nanocomposites and correlation with the interfacial thermal resistance. Polymer Composites, 2020, 41, 3787-3797.	2.3	21
16	Interface crack growth rate and fatigue life of multilayer-coated conductor tapes. Engineering Fracture Mechanics, 2020, 228, 106910.	2.0	14
17	Mechanical Damage of YBa ₂ Cu ₃ O ₇ -Coated Conducting Film Caused by Its CeO ₂ Interface with Defects. International Journal of Applied Mechanics, 2019, 11, 1950038.	1.3	10
18	An analytical method for predicting the net (thermal plus intrinsic) residual stresses in multilayered yttrium barium copper oxide coated conductors. Materials Research Express, 2019, 6, 096002.	0.8	6

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19	Thin-film coating; historical evolution, conventional deposition technologies, stress-state micro/nano-level measurement/models and prospects projection: a critical review. <i>Materials Research Express</i> , 2019, 6, 122001.	0.8	44
20	Modeling the trapped field distribution in a polycrystalline bulk superconductor based on a critical state model. <i>Physica C: Superconductivity and Its Applications</i> , 2019, 556, 43-60.	0.6	1
21	Numerical simulation of quench initiation and propagation in multi-filamentary Bi ₂ Sr ₂ CaCu ₂ O _x round wires at high magnetic fields. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	7
22	A displacement-energy model of studying the delaminating behavior of multi-layer REBCO coated conductor tapes. <i>Physica C: Superconductivity and Its Applications</i> , 2019, 560, 10-18.	0.6	14
23	Effective elastic moduli of nonspherical particle-reinforced composites with inhomogeneous interphase considering graded evolutions of elastic modulus and porosity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 350, 535-553.	3.4	57
24	Activation energy of oxygen diffusion: A possible indicator of supercurrents through YBa ₂ Cu ₃ O ₇ grain boundaries. <i>Applied Surface Science</i> , 2019, 480, 765-769.	3.1	14
25	Statistical study of the void structure of Bi ₂ 212 multifilamentary superconducting wires and its effect on the critical current density. <i>Engineering Computations</i> , 2019, 36, 2714-2725.	0.7	5
26	Molecular modelling of the effect of loading rate on elastic properties of CNT-polyethylene nanocomposite and its interface. <i>Materials Research Express</i> , 2019, 6, 1250d2.	0.8	9
27	Impact of the Complex Interface Between Bi ₂ Sr ₂ CaCu ₂ O _x Filaments and Ag Matrix on the Quench Behavior of Composite Round Wires. <i>IEEE Transactions on Applied Superconductivity</i> , 2019, 29, 1-9,	1.1	5
28	Fractal-based analysis of the void microstructure of Bi ₂ Sr ₂ CaCu ₂ O _x superconducting filaments and the caused anomalous thermal diffusion. <i>Computational Materials Science</i> , 2019, 158, 219-227.	1.4	4
29	Thickness-Dependent Current Density and Flux Distribution in Thin Current-Carrying Superconducting Films Exposed to a Magnetic Field. <i>Journal of Superconductivity and Novel Magnetism</i> , 2018, 31, 2741-2746.	0.8	0
30	Electron-phonon interaction and superconductivity in representative AuCu ₃ -type intermetallic compounds. <i>Computational Materials Science</i> , 2018, 150, 491-499.	1.4	8
31	n-Phase micromechanical framework for the conductivity and elastic modulus of particulate composites: Design to microencapsulated phase change materials (MPCMs)-cementitious composites. <i>Materials and Design</i> , 2018, 145, 108-115.	3.3	46
32	The Influence of Dispersedly Distributed Cracks on Critical Current of the Nb ₃ Sn Strand. <i>Journal of Superconductivity and Novel Magnetism</i> , 2018, 31, 1323-1328.	0.8	1
33	Influences of the Bi ₂ Sr ₂ CaCu ₂ O _x /Ag interface and interfilamentary bridge connections on AC loss of composite wires. <i>Physica C: Superconductivity and Its Applications</i> , 2018, 547, 69-76.	0.6	9
34	Controllable shape-memory recovery regions in polymers through mechanical programming. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45909.	1.3	14
35	Uncovering a new quasi-2D CuO ₂ plane between the YBa ₂ Cu ₃ O ₇ and CeO ₂ buffer layer of coated conductors. <i>Applied Surface Science</i> , 2018, 427, 169-173.	3.1	18
36	Predictions for structural stability and electronic evolution in pressure-induced overdoped YBa ₂ Cu ₃ O ₇ . <i>Computational Materials Science</i> , 2018, 155, 416-423.	1.4	2

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37	A unified model for the uniaxial and hydrostatic pressure dependence of T_c in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ ($x \in [6.95, 7.0]$). Computational Materials Science, 2018, 153, 268-274.	1.4	1
38	Pressure effect on the mechanical, electronic and thermodynamic properties of Ba_2Bi_3 : First-principle calculations. Journal of Physics and Chemistry of Solids, 2017, 104, 293-303.	1.9	5
39	Tunable shape-memory behaviors in amorphous polymers through bound solvent. Materials Letters, 2017, 209, 131-133.	1.3	18
40	A one-dimension nonlinear hysteretic constitutive model with elasto-thermo-magnetic coupling for giant magnetostrictive materials. Journal of Magnetism and Magnetic Materials, 2017, 441, 642-649.	1.0	28
41	Depairing current density through a low-angle grain boundary in a superconducting film. AIP Advances, 2016, 6, 055313.	0.6	2
42	Suppression of electromechanical instability in fiber-reinforced dielectric elastomers. AIP Advances, 2016, 6, 035321.	0.6	14
43	Flux-Pinning-Induced Stress and Deformation Analyses of a Long Rectangular Superconducting Bicrystal. Journal of Superconductivity and Novel Magnetism, 2016, 29, 2495-2501.	0.8	2
44	Critical Current Density Through Grain Boundaries in High-Temperature Superconductors. Journal of Superconductivity and Novel Magnetism, 2016, 29, 2711-2716.	0.8	7
45	An Exponential Model for Critical Current Density Through a Low-Angle Grain Boundary in a High- T_c Superconductor. Journal of Superconductivity and Novel Magnetism, 2016, 29, 2221-2224.	0.8	1
46	Effect of heat treatment and deformation temperature on the mechanical properties of ECAP processed ZK60 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 125-132.	2.6	59
47	Interaction of Two Parallel Cracks in REBCO Bulk Superconductors under Applied Magnetic Field. Chinese Physics Letters, 2016, 33, 077401.	1.3	0
48	Effect of an Elliptical Inclusion on Critical Current Density of a Long Cylindrical High- T_c Superconductor. Journal of Superconductivity and Novel Magnetism, 2016, 29, 2023-2029.	0.8	8
49	First-principles study of electronic structure, phonons and electron-phonon interaction in hexagonal PdTe. Physica C: Superconductivity and Its Applications, 2016, 520, 19-23.	0.6	5
50	Chaotic Motion of a Magnet Levitated Over a Superconductor. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-6.	1.1	31
51	First-Principle Study of Structural, Electronic and Magnetic Properties in $\text{Pd}_{1-x}\text{Fe}_x\text{Te}$ ($x = 0, 0.0625, \dots$)	1.0	8
52	High mechanical properties of rolled ZK60 Mg alloy through pre-equal channel angular pressing. Mechanika, 2016, 22, .	0.3	2
53	Crack problem for a bulk superconductor with nonsuperconducting inclusions under an electromagnetic force. AIP Advances, 2015, 5, .	0.6	13
54	Fracture behavior of an inclined crack interacting with a circular inclusion in a high- T_c superconductor under an electromagnetic force. AIP Advances, 2015, 5, .	0.6	12

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55	Eddy damping effect of additional conductors in superconducting levitation systems. <i>Physica C: Superconductivity and Its Applications</i> , 2015, 519, 112-117.	0.6	14
56	Influence of the Movement of the Neutral Axis on the Relation Between the Critical Current and Strain in Bending Bi2223/Ag Composite Tapes. <i>Journal of Superconductivity and Novel Magnetism</i> , 2015, 28, 3535-3543.	0.8	2
57	The elastic, electronic and thermodynamic properties of PdTe under high pressure from first-principles calculations. <i>Physica C: Superconductivity and Its Applications</i> , 2015, 509, 34-41.	0.6	13
58	Superior mechanical properties of ZK60 mg alloy processed by equal channel angular pressing and rolling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 630, 45-50.	2.6	55
59	A Modified Lattice Model of the Reversible Effect of Axial Strain on the Critical Current of Polycrystalline REBa ₂ Cu ₃ O _{7-δ} Films. <i>Chinese Physics Letters</i> , 2015, 32, 037401.	1.3	2
60	Analytic calculation of magnetic force between two current-carrying coils. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2015, 36, 475-486.	1.9	2
61	A new boundary integral equation for crack problems of the superconducting bulk in applied magnetic field. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	1
62	Modeling of the reversible effect of the axial strain on the critical current of superconducting REBCO films. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	2
63	A Three-Dimensional Fractal-Based Study of the Effects of the Complex Interface Between Bi ₂ Sr ₂ CaCu ₂ O _x Filaments and the Ag Matrix on the Mechanical Behavior of Composite Round Wires. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-8.	1.1	4
64	MODELING OF THE REVERSIBLE EFFECT OF THE AXIAL STRAIN ON THE CRITICAL CURRENT OF SUPERCONDUCTING REBCO FILMS. , 2015, , 25-26.		0
65	Numerical Studies of Thermally Induced Residual Strain/Stress in Bi2Sr2Ca2Cu3O _x /Ag/Ag Alloy Composite Tapes and the Dependence of Material Properties on the Temperature. <i>Journal of Superconductivity and Novel Magnetism</i> , 2014, 27, 1387-1396.	0.8	11
66	Characterization of the Elastic Properties of Bi2223/Ag/Ag Alloy Composite Tapes by the Generalized Self-Consistent Approach. <i>Journal of Superconductivity and Novel Magnetism</i> , 2013, 26, 2115-2119.	0.8	3
67	Fractal analysis of the role of the rough interface between Bi ₂ Sr ₂ CaCu ₂ O _x filaments and the Ag matrix in the mechanical behavior of composite round wires. <i>Superconductor Science and Technology</i> , 2013, 26, 055016.	1.8	30
68	Fractal-based modeling of the stress-strain relation of Bi2Sr2CaCu2Ox/AgMg superconducting round wires. , 2013, , .		0
69	Analysis of thermal residual strain in Bi2223 superconductor composite tapes. , 2013, , .		1
70	Modeling of the bending strain dependence of the critical current in Bi2223/Ag composite tapes based on the damage stress of the superconducting filament. <i>Physica C: Superconductivity and Its Applications</i> , 2012, 475, 5-9.	0.6	15
71	Crossing in the magnetic force-gap hysteresis curve of magnetic levitation systems with a high-T _c superconductor. <i>Physica C: Superconductivity and Its Applications</i> , 2010, 470, 461-464.	0.6	4
72	Hysteresis of magnetic force-gap in static and dynamic magnetic levitation with a high-T _c superconductor. <i>EPJ Applied Physics</i> , 2008, 44, 163-169.	0.3	0

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73	Drift of Levitated/Suspended Body in High- T_c Superconducting Levitation Systems Under Vibration—Part I: A Criterion Based on Magnetic Force-Gap Relation for Gap Varying With Time. IEEE Transactions on Applied Superconductivity, 2007, 17, 3795-3802.	1.1	60
74	Drift of Levitated/Suspended Body in High- T_c Superconducting Levitation Systems Under Vibration—Part II: Drift Velocity for Gap Varying With Time. IEEE Transactions on Applied Superconductivity, 2007, 17, 3803-3808.	1.1	38
75	Influence of Flux Creep on Dynamic Behavior of Magnetic Levitation Systems With a High- T_c Superconductor. IEEE Transactions on Applied Superconductivity, 2005, 15, 3856-3863.	1.1	29
76	Analytic expression of magnetic field distribution of rectangular permanent magnets. Applied Mathematics and Mechanics (English Edition), 2004, 25, 297-306.	1.9	107
77	Numerical Simulation of the Levitation Force of High- T_c Superconductors. Key Engineering Materials, 2003, 243-244, 553-558.	0.4	4
78	Effects of Stone-Wales defects of carbon nanotubes on the elastic properties of the carbon nanotube-polyethylene nanocomposite and its interface. Materials Research Express, 0, , .	0.8	0