Libo Gao

List of Publications by Year
in descending order

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105 papers	15,235 citations	61984 43 h-index	30922 102 g-index
105 all docs	105 docs citations	105 times ranked	21264 citing authors

#	Article	IF	Citations
1	Three-dimensional flexible and conductive interconnected graphene networks grown by chemical vapour deposition. Nature Materials, 2011, 10, 424-428.	27.5	3,493
2	Graphene Anchored with Co₃O₄ Nanoparticles as Anode of Lithium Ion Batteries with Enhanced Reversible Capacity and Cyclic Performance. ACS Nano, 2010, 4, 3187-3194.	14.6	2,358
3	Repeated growth and bubbling transfer of graphene with millimetre-size single-crystal grains using platinum. Nature Communications, 2012, 3, 699.	12.8	985
4	Efficient Preparation of Large-Area Graphene Oxide Sheets for Transparent Conductive Films. ACS Nano, 2010, 4, 5245-5252.	14.6	869
5	Synthesis of Graphene Sheets with High Electrical Conductivity and Good Thermal Stability by Hydrogen Arc Discharge Exfoliation. ACS Nano, 2009, 3, 411-417.	14.6	807
6	Synthesis of high-quality graphene with a pre-determined number of layers. Carbon, 2009, 47, 493-499.	10.3	650
7	Field Emission of Singleâ€Layer Graphene Films Prepared by Electrophoretic Deposition. Advanced Materials, 2009, 21, 1756-1760.	21.0	624
8	Mechanical Metamaterials and Their Engineering Applications. Advanced Engineering Materials, 2019, 21, 1800864.	3.5	493
9	Face-to-face transfer of wafer-scale graphene films. Nature, 2014, 505, 190-194.	27.8	386
10	Metal-Catalyst-Free Growth of Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2009, 131, 2082-2083.	13.7	258
11	Chemical vapour deposition. Nature Reviews Methods Primers, 2021, 1, .	21.2	244
12	Elemental superdoping of graphene and carbon nanotubes. Nature Communications, 2016, 7, 10921.	12.8	238
13	Elastic straining of free-standing monolayer graphene. Nature Communications, 2020, 11, 284.	12.8	194
14	Efficient growth of high-quality graphene films on Cu foils by ambient pressure chemical vapor deposition. Applied Physics Letters, 2010, 97, .	3.3	176
15	Chemical Vapor Deposition of Largeâ€Sized Hexagonal WSe₂ Crystals on Dielectric Substrates. Advanced Materials, 2015, 27, 6722-6727.	21.0	152
16	Flexible Fiber-Shaped Supercapacitor Based on Nickelâ€“Cobalt Double Hydroxide and Pen Ink Electrodes on Metallized Carbon Fiber. ACS Applied Materials & Interfaces, 2017, 9, 5409-5418.	8.0	147
17	Efficient synthesis of graphene nanoribbons sonochemically cut from graphene sheets. Nano Research, 2010, 3, 16-22.	10.4	143
18	Total Color Difference for Rapid and Accurate Identification of Graphene. ACS Nano, 2008, 2, 1625-1633.	14.6	135

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19	Nanocrystalline high-entropy alloy (CoCrFeNiAl0.3) thin-film coating by magnetron sputtering. Thin Solid Films, 2017, 638, 383-388.	1.8	128
20	Growth of environmentally stable transition metal selenide films. Nature Materials, 2019, 18, 602-607.	27.5	116
21	Proton-assisted growth of ultra-flat graphene films. Nature, 2020, 577, 204-208.	27.8	111
22	Facile synthesis of coreâ€“shell structured PANI-Co3O4 nanocomposites with superior electrochemical performance in supercapacitors. Applied Surface Science, 2016, 361, 57-62.	6.1	106
23	Dendrite-free Li metal anode by lowering deposition interface energy with Cu99Zn alloy coating. Energy Storage Materials, 2018, 14, 143-148.	18.0	99
24	Bulk growth of mono- to few-layer graphene on nickel particles by chemical vapor deposition from methane. Carbon, 2010, 48, 3543-3550.	10.3	96
25	Surface and Interference Coenhanced Raman Scattering of Graphene. ACS Nano, 2009, 3, 933-939.	14.6	87
26	Giant enhancement in vertical conductivity of stacked CVD graphene sheets by self-assembled molecular layers. Nature Communications, 2014, 5, 5461.	12.8	83
27	Novel 2D metamaterials with negative Poissonâ€™s ratio and negative thermal expansion. Extreme Mechanics Letters, 2019, 30, 100498.	4.1	80
28	Edge phonon state of mono- and few-layer graphene nanoribbons observed by surface and interference co-enhanced Raman spectroscopy. Physical Review B, 2010, 81, .	3.2	77
29	Growth Velocity and Direct Length-Sorted Growth of Short Single-Walled Carbon Nanotubes by a Metal-Catalyst-Free Chemical Vapor Deposition Process. ACS Nano, 2009, 3, 3421-3430.	14.6	76
30	Van der Waals Heteroepitaxial Growth of Monolayer Sb in a Puckered Honeycomb Structure. Advanced Materials, 2019, 31, e1806130.	21.0	75
31	Graphene-Bridged Multifunctional Flexible Fiber Supercapacitor with High Energy Density. ACS Applied Materials & Interfaces, 2018, 10, 28597-28607.	8.0	73
32	Highly Sensitive Pseudocapacitive Iontronic Pressure Sensor with Broad Sensing Range. Nano-Micro Letters, 2021, 13, 140.	27.0	69
33	Crystallographic Tailoring of Graphene by Nonmetal SiO_x Nanoparticles. Journal of the American Chemical Society, 2009, 131, 13934-13936.	13.7	68
34	3D printing of titanium-coated gradient composite lattices for lightweight mandibular prosthesis. Composites Part B: Engineering, 2020, 193, 108057.	12.0	67
35	Stereolithographic 3D Printing-Based Hierarchically Cellular Lattices for High-Performance Quasi-Solid Supercapacitor. Nano-Micro Letters, 2019, 11, 46.	27.0	62
36	Highâ€Entropy Alloy (HEA)â€Coated Nanolattice Structures and Their Mechanical Properties. Advanced Engineering Materials, 2018, 20, 1700625.	3.5	56

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37	Flexible Waterproof Piezoresistive Pressure Sensors with Wide Linear Working Range Based on Conductive Fabrics. Nano-Micro Letters, 2020, 12, 159.	27.0	53
38	Boosting the performance of single-atom catalysts via external electric field polarization. Nature Communications, 2022, 13, .	12.8	52
39	Additiveâ€Free Dispersion of Singleâ€Walled Carbon Nanotubes and Its Application for Transparent Conductive Films. Advanced Functional Materials, 2011, 21, 2330-2337.	14.9	51
40	A Novel Arch-Shape Nanogenerator Based on Piezoelectric and Triboelectric Mechanism for Mechanical Energy Harvesting. Nanomaterials, 2015, 5, 36-46.	4.1	49
41	NiO-bridged MnCo-hydroxides for flexible high-performance fiber-shaped energy storage device. Applied Surface Science, 2019, 475, 1058-1064.	6.1	48
42	Microstructure, Mechanical and Corrosion Behaviors of CoCrFeNiAl0.3 High Entropy Alloy (HEA) Films. Coatings, 2017, 7, 156.	2.6	47
43	Mechanical Properties of Nanostructured CoCrFeNiMn High-Entropy Alloy (HEA) Coating. Frontiers in Materials, 2018, 5, .	2.4	43
44	Metal-coated hybrid meso-lattice composites and their mechanical characterizations. Composite Structures, 2018, 203, 750-763.	5.8	40
45	In situ nanomechanical characterization of multi-layer MoS₂membranes: from intraplanar to interplanar fracture. Nanoscale, 2017, 9, 9119-9128.	5.6	39
46	Enhancing the Strength of Graphene by a Denser Grain Boundary. ACS Nano, 2018, 12, 4529-4535.	14.6	39
47	Manganese-Catalyzed Surface Growth of Single-Walled Carbon Nanotubes with High Efficiency. Journal of Physical Chemistry C, 2008, 112, 19231-19235.	3.1	37
48	Rationally designed nickel oxide ravines@iron cobalt-hydroxides with largely enhanced capacitive performance for asymmetric supercapacitors. Journal of Materials Chemistry A, 2017, 5, 16944-16952.	10.3	37
49	3D printing of dual phase-strengthened microlattices for lightweight micro aerial vehicles. Materials and Design, 2021, 206, 109767.	7.0	35
50	Tuning the Electronic Structure of an Î±-Antimonene Monolayer through Interface Engineering. Nano Letters, 2020, 20, 8408-8414.	9.1	33
51	Synthesis and Microwave Absorption Properties of Core-Shell Structured Co₃O₄-PANI Nanocomposites. Journal of Nanomaterials, 2015, 2015, 1-8.	2.7	32
52	Mechanical Enhancement of Core-Shell Microlattices through High-Entropy Alloy Coating. Scientific Reports, 2018, 8, 5442.	3.3	30
53	Thermal Effect and Rayleigh Instability of Ultrathin 4H Hexagonal Gold Nanoribbons. Matter, 2020, 2, 658-665.	10.0	30
54	Stereolithography (SLA) 3D printing of carbon fiber-graphene oxide (CF-GO) reinforced polymer lattices. Nanotechnology, 2021, 32, 235702.	2.6	30

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55	Stretchable and anti-impact iontronic pressure sensor with an ultrabroad linear range for biophysical monitoring and deep learning-aided knee rehabilitation. Microsystems and Nanoengineering, 2021, 7, 92.	7.0	30
56	Mechanically stable ternary heterogeneous electrodes for energy storage and conversion. Nanoscale, 2018, 10, 2613-2622.	5.6	28
57	Cellular Carbon-Film-Based Flexible Sensor and Waterproof Supercapacitors. ACS Applied Materials & Interfaces, 2019, 11, 26288-26297.	8.0	28
58	Self-assembly of hierarchical 3D starfish-like Co3O4 nanowire bundles on nickel foam for high-performance supercapacitor. Journal of Nanoparticle Research, 2016, 18, 1.	1.9	25
59	Direct quantification of mechanical responses of TiSiN/Ag multilayer coatings through uniaxial compression of micropillars. Vacuum, 2018, 156, 310-316.	3.5	25
60	Ultra-Flexible and Large-Area Textile-Based Triboelectric Nanogenerators with a Sandpaper-Induced Surface Microstructure. Materials, 2018, 11, 2120.	2.9	24
61	Large Elastic Deformation and Defect Tolerance of Hexagonal Boron Nitride Monolayers. Cell Reports Physical Science, 2020, 1, 100172.	5.6	23
62	Architectured graphene and its composites: Manufacturing and structural applications. Composites Part A: Applied Science and Manufacturing, 2021, 140, 106177.	7.6	22
63	Highly stretchable graphene nanoribbon springs by programmable nanowire lithography. Npj 2D Materials and Applications, 2019, 3, .	7.9	20
64	Experimental nanomechanics of 2D materials for strain engineering. Applied Nanoscience (Switzerland), 2021, 11, 1075-1091.	3.1	20
65	Compression behaviors of the bio-inspired hierarchical lattice structure with improved mechanical properties and energy absorption capacity. Journal of Materials Research and Technology, 2022, 17, 2755-2771.	5.8	20
66	Three-Dimensional Stretchable Microelectronics by Projection Microstereolithography (PÎ¼SL). ACS Applied Materials & Interfaces, 2021, 13, 8901-8908.	8.0	19
67	Size-dependent fracture behavior of silver nanowires. Nanotechnology, 2018, 29, 295703.	2.6	18
68	In situ tensile fracturing of multilayer graphene nanosheets for their in-plane mechanical properties. Nanotechnology, 2019, 30, 475708.	2.6	17
69	Largeâ€Area, Periodic, Hexagonal Wrinkles on Nanocrystalline Graphitic Film. Advanced Functional Materials, 2015, 25, 5492-5503.	14.9	16
70	Nano electromechanical approach for flexible piezoresistive sensor. Applied Materials Today, 2020, 18, 100475.	4.3	16
71	Deep Elastic Strain Engineering of 2D Materials and Their Twisted Bilayers. ACS Applied Materials & Interfaces, 2022, 14, 8655-8663.	8.0	16
72	A Green and Facile Synthesis of Carbon-Incorporated Co₃O₄ Nanoparticles and Their Photocatalytic Activity for Hydrogen Evolution. Journal of Nanomaterials, 2015, 2015, 1-7.	2.7	15

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73	Adsorption of Methyl Orange on Magnetically Separable Mesoporous Titania Nanocomposite. Chinese Journal of Chemical Engineering, 2014, 22, 1168-1173.	3.5	14
74	Biomimetic and Radially Symmetric Graphene Aerogel for Flexible Electronics. Advanced Electronic Materials, 2019, 5, 1900353.	5.1	14
75	Dual-Mode Flexible Capacitive Sensor for Proximity-Tactile Interface and Wireless Perception. IEEE Sensors Journal, 2022, 22, 10446-10453.	4.7	14
76	Synthesis of superparamagnetic iron oxide nanoparticles in carbon reduction method. Micro and Nano Letters, 2013, 8, 598-601.	1.3	13
77	Preparation Method of Co₃O₄Nanoparticles Using Degreasing Cotton and Their Electrochemical Performances in Supercapacitors. Journal of Nanomaterials, 2014, 2014, 1-9.	2.7	13
78	Anisotropic scattering continuum induced by crystal symmetry reduction in atomically thin <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi><mml:mo>â€“</mml:mo><mml:mi>RuCl</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2020, 101, .	3.2	13
79	Magnetically induced micropillar arrays for an ultrasensitive flexible sensor with a wireless recharging system. Science China Materials, 2021, 64, 1977-1988.	6.3	13
80	Heteroepitaxial growth of wafer scale highly oriented graphene using inductively coupled plasma chemical vapor deposition. 2D Materials, 2016, 3, 021001.	4.4	12
81	3D printed micro-mechanical device (MMD) for in situ tensile testing of micro/nanowires. Extreme Mechanics Letters, 2019, 33, 100575.	4.1	12
82	In situ mechanical characterization of silver nanowire/graphene hybrids films for flexible electronics. International Journal of Smart and Nano Materials, 2020, 11, 265-276.	4.2	10
83	Enhancing stability by tuning element ratio in 2D transition metal chalcogenides. Nano Research, 2021, 14, 1704-1710.	10.4	10
84	Wall-number selective growth of vertically aligned carbon nanotubes from FePt catalysts: a comparative study with Fe catalysts. Journal of Materials Chemistry, 2012, 22, 14149.	6.7	9
85	Photocatalytic Property of Fe₃O₄/SiO₂/TiO₂Core-Shell Nanoparticle with Different Functional Layer Thicknesses. Journal of Nanomaterials, 2014, 2014, 1-7.	2.7	9
86	Investigation of lattice distortion of Co3O4 nanoparticles prepared by a carbon-assisted method. Microelectronic Engineering, 2016, 159, 17-20.	2.4	9
87	Preparation of Ultra-Smooth Cu Surface for High-Quality Graphene Synthesis. Nanoscale Research Letters, 2018, 13, 340.	5.7	8
88	Atomic Study on Tension Behaviors of Sub-10 nm NanoPolycrystalline Cuâ€“Ta Alloy. Materials, 2019, 12, 3913.	2.9	8
89	Monolayer MoS2-Based Flexible and Highly Sensitive Pressure Sensor with Wide Sensing Range. Micromachines, 2022, 13, 660.	2.9	8
90	Flexible Pressure Sensor With Wide Linear Sensing Range for Humanâ€“Machine Interaction. IEEE Transactions on Electron Devices, 2022, 69, 3901-3907.	3.0	7

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91	A Bayesian inverse approach to measure the anisotropic plasticity properties of materials using spherical indentation experiment. Measurement: Journal of the International Measurement Confederation, 2021, 171, 108812.	5.0	6
92	Cold welding assisted self-healing of fractured ultrathin Au nanowires. Nano Express, 2020, 1, 020014.	2.4	6
93	Highâ€Frequency Flexible Graphene Fieldâ€Effect Transistors with Short Gate Length of 50â€‰nm and Record Extrinsic Cutâ€Off Frequency. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700435.	2.4	5
94	Turning ZrTe5 into a semiconductor through atom intercalation. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	5
95	Wearable, self-cleaning, wireless integrated tactile sensory system with superior sensitivity. Sensors and Actuators A: Physical, 2021, 331, 113027.	4.1	5
96	Second-harmonic generation in atomically thin <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â€²</mml:mtext><mml and its possible origin from charge density wave transitions. Physical Review B, 2022, 105, .	3.2	5
97	Synthesis of octahedral Co ₃ O ₄ via carbonâ€assisted method. Micro and Nano Letters, 2015, 10, 85-87.	1.3	4
98	Reliability of tensile fracture strength of Co-based metallic glass microwires by Weibull statistics. Materials Research Express, 2019, 6, 106565.	1.6	3
99	Molecular dynamics study on explosive boiling of ultra-thin liquid over solid substrate: considering interface wettability of Argon/MoS₂. Molecular Simulation, 2019, 45, 996-1003.	2.0	3
100	Superconductivity in two-dimensional Î·-Mo3C2 films. Science China Materials, 2021, 64, 664-672.	6.3	3
101	Tuning the morphology of 2D transition metal chalcogenides via oxidizing conditions. Journal of Physics Condensed Matter, 2022, 34, 195001.	1.8	3
102	Flexible Gas-Permeable and Resilient Bowtie Antenna for Tensile Strain and Temperature Sensing. IEEE Internet of Things Journal, 2022, 9, 23215-23223.	8.7	2
103	Molecular Dynamics Simulation of Self-assembly and Electroporation of Lipid Bilayer Membrane in Martini Force Field. , 2019, , .		1
104	Investigation of TiO<inf>2</inf>-SiO<inf>2</inf>-Fe<inf>3</inf>O<inf>4</inf> core-shell nanoparticle properties with different functional layer thickness. , 2013, , .		0
105	A Molecular Dynamics Simulation Study: The Inkjet Printing of Graphene Inks on Polyimide Substrates. Frontiers in Materials, 2021, 8, .	2.4	0