Lei Gao

List of Publications by Year
in descending order

148 papers	2,626 citations	186209 28 h-index	254106 43 g-index
148 all docs	148 docs citations	148 times ranked	2007 citing authors

#	Article	IF	Citations
1	Effective thermal and electrical conductivity of carbon nanotube composites. Chemical Physics Letters, 2007, 434, 297-300.	1.2	160
2	Reversal of transmission and reflection based on acoustic metagratings with integer parity design. Nature Communications, 2019, 10, 2326.	5.8	135
3	Realizing almost perfect bending waveguides with anisotropic epsilon-near-zero metamaterials. Applied Physics Letters, 2012, 100, .	1.5	117
4	Nano-sized FeSe2 anchored on reduced graphene oxide as a promising anode material for lithium-ion and sodium-ion batteries. Journal of Materials Science, 2019, 54, 4225-4235.	1.7	74
5	Differential effective medium theory for thermal conductivity in nanofluids. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 348, 355-360.	0.9	69
6	Electromagnetic transparency by coated spheres with radial anisotropy. Physical Review E, 2008, 78, 046609.	0.8	68
7	Synthesis of magnetite octahedrons from iron powders through a mild hydrothermal method. Materials Research Bulletin, 2006, 41, 2226-2231.	2.7	62
8	Temperature-dependent Goos-HÃnchen shift on the interface of metal/dielectric composites. Optics Express, 2009, 17, 21433.	1.7	61
9	Effective thermal conductivity in nanofluids of nonspherical particles with interfacial thermal resistance: Differential effective medium theory. Journal of Applied Physics, 2006, 100, 024913.	1.1	57
10	Unveiling the correlation between nonâ€diffracting tractor beam and its singularity in Poynting vector. Laser and Photonics Reviews, 2015, 9, 75-82.	4.4	52
11	Manipulate the Transmissions Using Index-Near-Zero or Epsilon-Near-Zero Metamaterials with Coated Defects. Plasmonics, 2012, 7, 353-358.	1.8	48
12	Achieving Invisibility of Homogeneous Cylindrically Anisotropic Cylinders. Plasmonics, 2010, 5, 251-258.	1.8	46
13	GOOS-HÃƒÂ„NCHEN SHIFT AT THE SURFACE OF CHIRAL NEGATIVE REFRACTIVE MEDIA. Progress in Electromagnetics Research, 2009, 90, 255-268.	1.6	40
14	Overlapped illusion optics: a perfect lens brings a brighter feature. New Journal of Physics, 2011, 13, 023010.	1.2	40
15	Giant Goos-HÃnchen shift induced by bounded states in optical PT-symmetric bilayer structures. Optics Express, 2019, 27, 7857.	1.7	38
16	Optical bistability and tristability in nonlinear metal/dielectric composite media of nonspherical particles. Physical Review E, 2003, 68, 066601.	0.8	37
17	Effective medium approximation for two-component nonlinear composites with shape distribution. Journal of Physics Condensed Matter, 2003, 15, 4397-4409.	0.7	37
18	Resonant light scattering by small coated nonmagnetic spheres: magnetic resonances, negative refraction, and prediction. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1728.	0.9	37

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19	Radiation pressure of active dispersive chiral slabs. Optics Express, 2015, 23, 16546.	1.7	37
20	Third-order nonlinear optical response of metal dielectric composites. Journal of Applied Physics, 2000, 87, 1620-1625.	1.1	36
21	Fano-enhanced pulling and pushing optical force on active plasmonic nanoparticles. Physical Review A, 2017, 96, .	1.0	35
22	Large and tunable lateral shifts in one-dimensional PT-symmetric layered structures. Optics Express, 2017, 25, 9676.	1.7	35
23	Coreâ€“Shell-Structured Dielectricâ€“Metal Circular Nanodisk Antenna: Gap Plasmon Assisted Magnetic Toroid-like Cavity Modes. ACS Photonics, 2015, 2, 60-65.	3.2	34
24	Mechanism Behind Angularly Asymmetric Diffraction in Phase-Gradient Metasurfaces. Physical Review Applied, 2019, 12, .	1.5	34
25	Anomalous electromagnetic scattering from radially anisotropic nanowires. Physical Review A, 2012, 86, .	1.0	33
26	Superlens from metal-dielectric composites of nonspherical particles. Physical Review B, 2007, 76, .	1.1	30
27	Low-threshold optical bistability of graphene-wrapped dielectric composite. Scientific Reports, 2016, 6, 23354.	1.6	30
28	Subwavelength imaging from a multilayered structure containing interleaved nonspherical metal-dielectric composites. Physical Review B, 2008, 77, .	1.1	29
29	Magnetic control of Goos-HÃnchen shifts in a yttrium-iron-garnet film. Scientific Reports, 2017, 7, 45866.	1.6	29
30	Equivalent perfect magnetic conductor based on epsilon-near-zero media. Applied Physics Letters, 2014, 104, .	1.5	28
31	Tunable Optical Bistability and Tristability in Nonlinear Graphene-Wrapped Nanospheres. Journal of Physical Chemistry C, 2017, 121, 11804-11810.	1.5	27
32	Directive emission based on one-dimensional metal heterostructures. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 35.	0.9	26
33	Goosâ€“HÃnchen shift of the reflection from nonlinear nanocomposites with electric field tunability. Applied Physics Letters, 2010, 97, 041903.	1.5	25
34	Goosâ€“HÃnchen shift of the reflected wave through an anisotropic metamaterial containing metal/dielectric nanocomposites. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 1436.	0.8	25
35	Geometry symmetry-free and higher-order optical bound states in the continuum. Nature Communications, 2021, 12, 4390.	5.8	25
36	Multiwalled carbon nanotube-modified Nb2O5 with enhanced electrochemical performance for lithium-ion batteries. Ceramics International, 2018, 44, 23226-23231.	2.3	23

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37	Lithium storage mechanisms of CdSe nanoparticles with carbon modification for advanced lithium ion batteries. Chemical Communications, 2019, 55, 2996-2999.	2.2	23
38	Enhanced third-harmonic generation induced by nonlinear field resonances in plasmonic-graphene metasurfaces. Optics Express, 2020, 28, 13234.	1.7	23
39	Switchable bifunctional metasurfaces: nearly perfect retroreflection and absorption at the terahertz regime. Optics Letters, 2020, 45, 3989.	1.7	23
40	PLASMONIC RESONANT LIGHT SCATTERING BY A CYLINDER WITH RADIAL ANISOTROPY. Progress in Electromagnetics Research, 2010, 106, 335-347.	1.6	22
41	Tunable Fano resonances and enhanced optical bistability in composites of coated cylinders due to nonlocality. Physical Review B, 2016, 93, .	1.1	22
42	Optical bistability in a nonlinear-shell-coated metallic nanoparticle. Scientific Reports, 2016, 6, 21741.	1.6	21
43	Optical bistability in composite media with nonlinear coated inclusions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 318, 119-125.	0.9	20
44	Second- and third-harmonic generations for a nondilute suspension of coated particles with radial dielectric anisotropy. European Physical Journal B, 2007, 55, 403-409.	0.6	20
45	Theory of ac electrokinetic behavior of spheroidal cell suspensions with an intrinsic dispersion. Physical Review E, 2003, 67, 021910.	0.8	19
46	Goosâ€“HÃnchen shift in oneâ€dimensional photonic crystals containing uniaxial indefinite medium. Physica Status Solidi (B): Basic Research, 2009, 246, 1088-1093.	0.7	19
47	Enhanced Spin Hall Effect of Light in Spheres with Dual Symmetry. Laser and Photonics Reviews, 2018, 12, 1800130.	4.4	19
48	Ultrafast cryptography with indefinitely switchable optical nanoantennas. Light: Science and Applications, 2018, 7, 77.	7.7	18
49	Inverse design mechanism of cylindrical cloaks without knowledge of the required coordinate transformation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 1079.	0.8	17
50	Topological effects in anisotropy-induced nano-fano resonance of a cylinder. Optics Letters, 2015, 40, 4162.	1.7	17
51	Self-consistent formalism for a strongly nonlinear composite: comparison with variational approach. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 219, 324-328.	0.9	16
52	Surface polaritons and imaging properties of a multi-layer structure containing negative-refractive-index materials. Journal of Physics Condensed Matter, 2004, 16, 4743-4751.	0.7	16
53	Effective medium approximation for optical bistability in nonlinear metal-dielectric composites. Solid State Communications, 2004, 129, 593-598.	0.9	16
54	Influence of spherical anisotropy on the optical properties ofÂplasmon resonant metallic nanoparticles. Applied Physics A: Materials Science and Processing, 2011, 102, 673-679.	1.1	16

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55	Independently tunable transmission-type magneto-optical isolators based on multilayers containing magnetic materials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2185-2188.	0.9	16
56	Hiding objects and obtaining Fano resonances in index-near-zero and epsilon-near-zero metamaterials with Bragg-fiber-like defects. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1878.	0.9	16
57	Abnormal degree centrality in end-stage renal disease (ESRD) patients with cognitive impairment: a resting-state functional MRI study. Brain Imaging and Behavior, 2021, 15, 1170-1180.	1.1	16
58	Nonlinear dielectric response in partially resonant composites with radial dielectric anisotropy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 359, 516-522.	0.9	14
59	Study of a slab waveguide loaded with dispersive anisotropic metamaterials. Applied Physics A: Materials Science and Processing, 2009, 95, 367-372.	1.1	14
60	Tunable beam splitting and negative refraction in heterostructure with metamaterial. Applied Physics A: Materials Science and Processing, 2011, 104, 1137-1142.	1.1	14
61	Tunability of Multipolar Plasmon Resonances and Fano Resonances in Bimetallic Nanoshells. Plasmonics, 2018, 13, 623-630.	1.8	14
62	Severe asymptomatic carotid stenosis is associated with robust reductions in homotopic functional connectivity. NeuroImage: Clinical, 2019, 24, 102101.	1.4	14
63	Extinction properties of a coated sphere containing a left-handed material. Optics Communications, 2004, 239, 25-31.	1.0	13
64	Optical bistability in nonlinear mixtures of coated inclusions with radial dielectric anisotropy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 335, 457-463.	0.9	13
65	Enhancement of Optical Nonlinearity by Core-Shell Bimetallic Nanostructures. Plasmonics, 2016, 11, 183-187.	1.8	13
66	Optical tristability and ultrafast Fano switching in nonlinear magnetoplasmonic nanoparticles. Physical Review B, 2018, 97, .	1.1	13
67	Optical bistability of nonlinear multilayered structure containing left-handed materials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 337, 473-479.	0.9	12
68	Nonlocal surface plasmon amplification by stimulated emission of radiation. Physical Review A, 2014, 89, .	1.0	12
69	Second- and third-harmonic generation in random composites of graded spherical particles. Physical Review B, 2005, 72, .	1.1	11
70	Second- and third-harmonic generations in compositionally graded films. Physical Review E, 2005, 71, 067601.	0.8	11
71	Photonic Thermal Rectification with Composite Metamaterials. Chinese Physics Letters, 2021, 38, 016801.	1.3	11
72	Tunable spin-dependent splitting of light beam in a chiral metamaterial slab. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.6	10

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73	Scattering of Light with Orbital Angular Momentum from a Metallic Meta-Cylinder with Engineered Topological Charge. ACS Photonics, 2021, 8, 2027-2032.	3.2	10
74	Phase-Gradient Metasurfaces Based on Local Fabryâ€“PÃ©rot Resonances. Chinese Physics Letters, 2020, 37, 097801.	1.3	10
75	Near-field imaging by a multi-layer structure consisting ofÂalternate right-handed and left-handed materials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 322, 390-395.	0.9	9
76	Decreased group velocity in compositionally graded films. Physical Review E, 2006, 73, 036602.	0.8	9
77	Photophoresis of spherical particles with interfacial thermal resistance in microâ€“nano fluids. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2815-2820.	0.9	9
78	Nonlocal composite media in calculations of the Casimir force. Physical Review A, 2014, 89, .	1.0	9
79	Nonlocality-Broaden Optical Bistability in a Nonlinear Plasmonic Coreâ€“Shell Cylinder. Journal of Physical Chemistry C, 2017, 121, 8952-8960.	1.5	9
80	Nonlinear Nanophotonic Circuitry: Tristable and Astable Multivibrators and Chaos Generator. Laser and Photonics Reviews, 2020, 14, 1900304.	4.4	9
81	Photonic hyperinterfaces for light manipulations. Optica, 2020, 7, 687.	4.8	9
82	Effective response of a strongly nonlinear composite: comparison with variational approach. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 222, 207-211.	0.9	8
83	Negative refractive index in composite medium with metallic magnetic inclusions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 318, 592-599.	0.9	8
84	Maxwell-Garnett type approximation for nonlinear composites with shape distribution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 309, 435-442.	0.9	8
85	Effectively negatively refractive material made of negative-permittivity and negative-permeability bilayer. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 351, 391-397.	0.9	8
86	Nonlinear thermal conductivity of granular composite medium. Solid State Communications, 1996, 100, 53-56.	0.9	7
87	Effective medium approximation for weakly nonlinear metal/dielectric composites with shape distribution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 309, 407-414.	0.9	7
88	Effective medium approximation for strongly nonlinear composite media with shape distribution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 306, 337-343.	0.9	7
89	Left-handed material containing spherical and nonspherical metallic and magnetic particles. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 328, 225-231.	0.9	7
90	Optical bistability of a nondilute suspension of nonlinear coated particles. Physica B: Condensed Matter, 2005, 368, 279-286.	1.3	7

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91	Negative refraction in chiral composite materials. Journal of Applied Physics, 2008, 104, 023537.	1.1	7
92	Facile synthesis of MTaO4 (M = Al, Cr and Fe) metal oxides and their application as anodes for lithium-ion batteries. Ceramics International, 2018, 44, 8827-8831.	2.3	7
93	Spectral representation theory for higher-order nonlinear response in random composites. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 322, 250-259.	0.9	6
94	Effective negative refraction in anisotropic layered composites. Journal of Applied Physics, 2009, 105, 013532.	1.1	6
95	Controllable switching behavior of optical Tamm state based on nematic liquid crystal. Solid State Communications, 2011, 151, 993-995.	0.9	6
96	Electrically controllable unidirectional transmission in a heterostructure composed of a photonic crystal and a deformable liquid droplet. Solid State Communications, 2012, 152, 577-580.	0.9	6
97	Broadened region for robust optical bistability in a nonlocal core and Kerr shell nanoparticle. Optics Letters, 2018, 43, 2836.	1.7	6
98	Gray matter asymmetry in asymptomatic carotid stenosis. Human Brain Mapping, 2021, 42, 5665-5676.	1.9	6
99	Optical polarization rogue waves and their identifications. JPhys Photonics, 2020, 2, 032004.	2.2	6
100	Tunable Narrow-Linewidth Fiber Laser Based on the Acoustically Controlled Polarization Conversion in Dispersion Compensation Fiber. Journal of Lightwave Technology, 2022, 40, 2971-2979.	2.7	6
101	Comment on â€œCrossover exponents in percolating superconductorâ€“nonlinear-conductor mixturesâ€. Physical Review B, 1999, 59, 668-670.	1.1	5
102	Effective nonlinear optical properties of shape distributed composite media. European Physical Journal B, 2003, 33, 165-171.	0.6	5
103	Effective nonlinear response in random mixture of coated granular cylinders. Physica Status Solidi (B): Basic Research, 2003, 236, 182-190.	0.7	5
104	Enhanced group velocity in composite media of particles with non-spherical shape or shape distribution. Journal of Physics A, 2005, 38, 7765-7771.	1.6	5
105	Surface polaritons and transmission in multi-layer structures containing anisotropic left-handed materials. Applied Physics A: Materials Science and Processing, 2007, 87, 199-204.	1.1	5
106	Cloak an illusion. Frontiers of Physics, 2011, 6, 61-64.	2.4	5
107	Macroscopic broadband optical escalator with force-loaded transformation optics. Optics Express, 2013, 21, 796.	1.7	5
108	Casimir force between composite materials containing nonspherical particles. Physical Review A, 2013, 87, .	1.0	5

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109	How Do You Feel Now? The Salience Network Functional Connectivity in End-Stage Renal Disease. Frontiers in Neuroscience, 2020, 14, 533910.	1.4	5
110	Optical pulling force on nonlinear nanoparticles with gain. AIP Advances, 2020, 10, .	0.6	5
111	Temperature dependence of nonlinear optical response in metal/dielectrics composite media. Solid State Communications, 1998, 107, 751-755.	0.9	4
112	Tip-contact related low-bias negative differential resistance and rectifying effects in benzeneâ€“porphyrinâ€“benzene molecular junctions. Journal of Chemical Physics, 2014, 141, 174304.	1.2	4
113	Bistable near field and bistable transmittance in 2D composite slab consisting of nonlocal core-Kerr shell inclusions. Optics Express, 2017, 25, 1062.	1.7	4
114	Optical nonlinearity enhancement of compositionally graded films. European Physical Journal B, 2005, 44, 481-486.	0.6	3
115	Repulsive and attractive Casimir forces between magnetodielectric slabs. Solid State Communications, 2012, 152, 1666-1669.	0.9	3
116	Coexistence of Scattering Enhancement and Suppression by Plasmonic Cavity Modes in Loaded Dimer Gap-Antennas. Scientific Reports, 2015, 5, 17234.	1.6	3
117	The enhanced spin-polarized transport behaviors through cobalt benzeneâ€“porphyrinâ€“benzene molecular junctions: the effect of functional groups. Journal of Physics Condensed Matter, 2017, 29, 175201.	0.7	3
118	Voxel-Wise Analysis of Structural and Functional MRI for Lateralization of Handedness in College Students. Frontiers in Human Neuroscience, 2021, 15, 687965.	1.0	3
119	A combination of support vector machine and voxel-based morphometry in adult male alcohol use disorder patients with cognitive deficits. Brain Research, 2021, 1771, 147644.	1.1	3
120	Detecting nonlocality by second-harmonic generation from a graphene-wrapped nanoparticle. Optics Express, 2022, 30, 12722.	1.7	3
121	Effective nonlinear susceptibilities of random mixture of coated granular cylinders. Physica B: Condensed Matter, 1997, 240, 378-384.	1.3	2
122	Effective nonlinear conductivity of strongly nonlinear composites with H-S microgeometry. Solid State Communications, 1997, 102, 29-33.	0.9	2
123	Critical properties of nonlinear susceptibilities for weakly nonlinear composites. Journal of Physics Condensed Matter, 1998, 10, 9273-9280.	0.7	2
124	Crossover exponents in percolating nonlinear normal conductorâ€“insulator mixtures. Physica A: Statistical Mechanics and Its Applications, 1999, 271, 238-250.	1.2	2
125	Spectral representation theory for higher order nonlinear responses in random composites with arbitrary nonlinearity. Physica Status Solidi (B): Basic Research, 2004, 241, 1115-1123.	0.7	2
126	Subluminal and superluminal pulse propagation in inhomogeneous media of nonspherical particles. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 355, 413-417.	0.9	2

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127	Tunable negative refraction and subwavelength imaging in the metal-dielectric composites of nonspherical particles. , 2006, , .		2
128	Omnidirectional surface guided modes from one-dimensional photonic crystal formed by single-negative materials. Journal of Magnetism and Magnetic Materials, 2007, 311, 609-613.	1.0	2
129	Tunable Bistability in the Goosâ€“HÃnchen Effect with Nonlinear Graphene. Chinese Physics Letters, 2019, 36, 064202.	1.3	2
130	Graphene-tuned optical manipulation on microparticle by Bessel beam. AIP Advances, 2019, 9, 035154.	0.6	2
131	3D broadband waveguide cloak and light squeezing in terahertz regime. Optics Letters, 2020, 45, 652.	1.7	2
132	Crossover exponents in a superconductor-nonlinear-normal-conductor network below the percolation threshold. Journal of Physics Condensed Matter, 1999, 11, 8727-8738.	0.7	1
133	Effective nonlinear response of random resistor networks with anomalous distributions of conductances. Solid State Communications, 2004, 132, 821-826.	0.9	1
134	Enhanced and decreased group velocity in compositionally graded films of nonspherical particles. , 2006, , .		1
135	Unilateral thalamic glioma disrupts large-scale functional architecture of human brain during resting state . Neuropsychiatric Disease and Treatment, 2019, Volume 15, 947-956.	1.0	1
136	Longitudinal trajectories of brain volume in combined antiretroviral therapy treated and untreated SIV-infected Rhesus Macaques. Aids, 2021, Publish Ahead of Print, 2433-2443.	1.0	1
137	Topology-tuned light scattering around Fano resonances by a core-shell cylinder. Optics Express, 2022, 30, 8399.	1.7	1
138	Nonlinear Susceptibility of Strongly Nonlinear composites. Communications in Theoretical Physics, 1997, 27, 403-406.	1.1	0
139	Effective nonlinear response in mixed-nonlinear inhomogeneous conductors composite. Physica B: Condensed Matter, 1998, 245, 103-109.	1.3	0
140	Numerical study of effective optical nonlinear properties in composites with anomalous distribution. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 332, 147-152.	0.9	0
141	Second and third harmonic generations in random composites of spheroidal particles. Physica Status Solidi (B): Basic Research, 2005, 242, 1307-1314.	0.7	0
142	Theory of nondegenerate nonlinear optical susceptibilities of graded composites with high-volume fractions. Physical Review E, 2005, 71, 017601.	0.8	0
143	Optical nonlinearity enhancement in compositionally graded films of nonspherical nanoparticles. , 2006, , .		0
144	Mapping drought status of winter wheat from MODIS data in North China Plain. Proceedings of SPIE, 2007, 6752, 791.	0.8	0

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145	Transmissive properties and Faraday rotation of tunable photonic-band-gap system containing liquid crystal. , 2007, , .		0
146	Extinction properties in coated spheres with radial anisotropy: Full-wave theory. , 2009, , .		0
147	Nonlocality ehanced optical bistability in core-shell structure. , 2017, , .		0
148	Gain-Assisted Optical Pulling Force on Plasmonic Graded Nano-Shell with Equivalent Medium Theory. Physics, 2021, 3, 955-968.	0.5	0