Xiaoshan Liu

List of Publications by Year
in descending order

145 papers	3,556 citations	136740 32 h-index	168136 53 g-index
147 all docs	147 docs citations	147 times ranked	2323 citing authors

#	Article	IF	Citations
1	Automatically Acquired Broadband Plasmonic-Metamaterial Black Absorber during the Metallic Film-Formation. ACS Applied Materials & Interfaces, 2015, 7, 4962-4968.	4.0	229
2	Ultra-broadband perfect solar absorber by an ultra-thin refractory titanium nitride meta-surface. Solar Energy Materials and Solar Cells, 2018, 179, 346-352.	3.0	177
3	Volumeâ€Enhanced Raman Scattering Detection of Viruses. Small, 2019, 15, e1805516.	5.2	150
4	Near-unity, full-spectrum, nanoscale solar absorbers and near-perfect blackbody emitters. Solar Energy Materials and Solar Cells, 2019, 190, 20-29.	3.0	128
5	Ultra-broadband perfect absorber utilizing refractory materials in metal-insulator composite multilayer stacks. Optics Express, 2019, 27, 11809.	1.7	113
6	Beehive-Inspired Macroporous SERS Probe for Cancer Detection through Capturing and Analyzing Exosomes in Plasma. ACS Applied Materials & Interfaces, 2020, 12, 5136-5146.	4.0	102
7	<i>Î»</i>³/20000 plasmonic nanocavities with multispectral ultra-narrowband absorption for high-quality sensing. Applied Physics Letters, 2014, 104, 081116.	1.5	93
8	Truncated titanium/semiconductor cones for wide-band solar absorbers. Nanotechnology, 2019, 30, 305203.	1.3	86
9	Multi-band light perfect absorption by a metal layer-coupled dielectric metamaterial. Optics Express, 2016, 24, 5020.	1.7	84
10	Quantitatively optical and electrical-adjusting high-performance switch by graphene plasmonic perfect absorbers. Carbon, 2018, 140, 362-367.	5.4	84
11	Electrically modulating and switching infrared absorption of monolayer graphene in metamaterials. Carbon, 2020, 162, 187-194.	5.4	82
12	Enhancing refractive index sensing capability with hybrid plasmonicâ€"photonic absorbers. Journal of Materials Chemistry C, 2015, 3, 4222-4226.	2.7	80
13	Robust multispectral transparency in continuous metal film structures via multiple near-field plasmon coupling by a finite-difference time-domain method. Physical Chemistry Chemical Physics, 2014, 16, 4320.	1.3	75
14	Titanium resonators based ultra-broadband perfect light absorber. Optical Materials, 2018, 83, 118-123.	1.7	74
15	Multi-functional polarization conversion manipulation via graphene-based metasurface reflectors. Optics Express, 2021, 29, 70.	1.7	71
16	Semiconductor-enhanced Raman scattering sensors via quasi-three-dimensional Au/Si/Au structures. Nanophotonics, 2019, 8, 1095-1107.	2.9	65
17	Multispectral spatial and frequency selective sensing with ultra-compact cross-shaped antenna plasmonic crystals. Sensors and Actuators B: Chemical, 2015, 215, 480-488.	4.0	63
18	Near-unity transparency of a continuous metal film via cooperative effects of double plasmonic arrays. Nanotechnology, 2013, 24, 155203.	1.3	61

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19	Recent progresses on metamaterials for optical absorption and sensing: a review. Journal Physics D: Applied Physics, 2021, 54, 113002.	1.3	58
20	Optical Magnetic Field Enhancement via Coupling Magnetic Plasmons to Optical Cavity Modes. IEEE Photonics Technology Letters, 2016, 28, 1529-1532.	1.3	49
21	Ultra-broadband solar absorbers for high-efficiency thermophotovoltaics. Optics Express, 2020, 28, 36476.	1.7	49
22	High Sensing Properties of Magnetic Plasmon Resonance by Strong Coupling in Three-Dimensional Metamaterials. Journal of Lightwave Technology, 2021, 39, 562-565.	2.7	47
23	Annealed gold nanoshells with highly-dense hotspots for large-area efficient Raman scattering substrates. Sensors and Actuators B: Chemical, 2018, 262, 845-851.	4.0	45
24	Strong Magnetic Plasmon Resonance in a Simple Metasurface for High-Quality Sensing. Journal of Lightwave Technology, 2021, 39, 4525-4528.	2.7	45
25	Large-area, low-cost, ultra-broadband, infrared perfect absorbers by coupled plasmonic-photonic micro-cavities. Solar Energy Materials and Solar Cells, 2018, 186, 142-148.	3.0	44
26	Metamaterial and nanomaterial electromagnetic wave absorbers: structures, properties and applications. Journal of Materials Chemistry C, 2020, 8, 12768-12794.	2.7	40
27	Achieving an ultra-narrow multiband light absorption meta-surface via coupling with an optical cavity. Nanotechnology, 2015, 26, 235702.	1.3	39
28	Dual broadband near-infrared perfect absorber based on a hybrid plasmonic-photonic microstructure. Optics Express, 2013, 21, 3021.	1.7	38
29	Optical transmission of corrugated metal films on a two-dimensional hetero-colloidal crystal. Optics Express, 2012, 20, 9215.	1.7	37
30	One-process fabrication of metal hierarchical nanostructures with rich nanogaps for highly-sensitive surface-enhanced Raman scattering. Nanotechnology, 2015, 26, 185702.	1.3	37
31	Ultra-narrow multi-band polarization-insensitive plasmonic perfect absorber for sensing. Nanotechnology, 2020, 31, 465501.	1.3	37
32	Enhanced Optical Transmission of a Continuous Metal Film With Double Metal Cylinder Arrays. IEEE Photonics Technology Letters, 2013, 25, 1157-1160.	1.3	36
33	High-Q plasmonic graphene absorbers for electrical switching and optical detection. Carbon, 2020, 166, 256-264.	5.4	35
34	Ultra-broadband Tunable Resonant Light Trapping in a Two-dimensional Randomly Microstructured Plasmonic-photonic Absorber. Scientific Reports, 2017, 7, 43803.	1.6	34
35	All-metal meta-surfaces for narrowband light absorption and high performance sensing. Journal Physics D: Applied Physics, 2016, 49, 445104.	1.3	32
36	Tunable Plasmon-Induced Transparency of Double Continuous Metal Films Sandwiched with a Plasmonic Array. Plasmonics, 2013, 8, 1285-1292.	1.8	31

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37	Grating-assisted ultra-narrow multispectral plasmonic resonances for sensing application. Applied Physics Express, 2019, 12, 072002.	1.1	31
38	Colloid templated semiconductor meta-surface for ultra-broadband solar energy absorber. Solar Energy, 2020, 198, 194-201.	2.9	31
39	Plasmonic sensors with an ultra-high figure of merit. Nanotechnology, 2020, 31, 115208.	1.3	30
40	Semiconductor meta-surface based perfect light absorber. Nanotechnology, 2017, 28, 165202.	1.3	26
41	Perfect Absorption and Refractive-Index Sensing by Metasurfaces Composed of Cross-Shaped Hole Arrays in Metal Substrate. Nanomaterials, 2021, 11, 63.	1.9	26
42	Hybrid Metal-Semiconductor Meta-Surface Based Photo-Electronic Perfect Absorber. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-7.	1.9	25
43	Polarization and angle insensitive ultra-broadband mid-infrared perfect absorber. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126288.	0.9	25
44	An ultra-broadband, polarization and angle-insensitive metamaterial light absorber. Journal Physics D: Applied Physics, 2020, 53, 095106.	1.3	23
45	Multi-Band High Refractive Index Susceptibility of Plasmonic Structures with Network-Type Metasurface. Plasmonics, 2016, 11, 677-682.	1.8	22
46	Durable Broadband and Omnidirectional Ultra-antireflective Surfaces. ACS Applied Materials & Interfaces, 2018, 10, 40180-40188.	4.0	21
47	A Novel SERS Substrate Platform: Spatially Stacking Plasmonic Hotspots Films. Nanoscale Research Letters, 2019, 14, 94.	3.1	21
48	Effects of Compound Rectangular Subwavelength Hole Arrays on Enhancing Optical Transmission. IEEE Photonics Journal, 2015, 7, 1-8.	1.0	20
49	Broadband, wide-angle, and polarization-insensitive enhancement of light absorption in monolayer graphene over whole visible spectrum. Results in Physics, 2020, 18, 103134.	2.0	20
50	Split graphene nano-disks with tunable, multi-band, and high-Q plasmon modes. Optical Materials, 2019, 89, 18-24.	1.7	19
51	Thermal-stability resonators for visible light full-spectrum perfect absorbers. Solar Energy, 2020, 208, 445-450.	2.9	19
52	Tunable dual-band plasmonic perfect absorber and its sensing applications. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 2750.	0.9	19
53	All-Metal Resonant Metamaterials for One-, Two-, Three-Band Perfect Light Absorbers and Sensors. Plasmonics, 2019, 14, 967-971.	1.8	18
54	Ultra-high quality graphene perfect absorbers for high performance switching manipulation. Optics Express, 2020, 28, 37294.	1.7	18

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55	The Light Absorption Enhancement in Graphene Monolayer Resulting from the Diffraction Coupling of Surface Plasmon Polariton Resonance. Nanomaterials, 2022, 12, 216.	1.9	17
56	Tunable Extraordinary Optical Transmission in a Metal Film Perforated with Two-Level Subwavelength Cylindrical Holes. Plasmonics, 2014, 9, 1149-1153.	1.8	16
57	Extraordinary Optical Transmission in Metallic Nanostructures with a Plasmonic Nanohole Array of Two Connected Slot Antennas. Plasmonics, 2015, 10, 483-488.	1.8	16
58	Refractory materials and plasmonics based perfect absorbers. Nanotechnology, 2021, 32, 132002.	1.3	16
59	Ultra-narrowband light absorption enhancement of monolayer graphene from waveguide mode. Optics Express, 2020, 28, 24908.	1.7	16
60	Plasmonic wavy surface for ultrathin semiconductor black absorbers. Optics Express, 2020, 28, 27764.	1.7	16
61	Semiconductor-nanoantenna-assisted solar absorber for ultra-broadband light trapping. Nanoscale Research Letters, 2020, 15, 76.	3.1	15
62	Multi-resonant refractory prismoid for full-spectrum solar energy perfect absorbers. Optics Express, 2020, 28, 31763.	1.7	15
63	Metallic Metasurfaces for Light Absorbers. IEEE Photonics Technology Letters, 2017, 29, 47-50.	1.3	14
64	Broadband perfect metamaterial absorber based on the gallium arsenide grating complex structure. Results in Physics, 2019, 15, 102760.	2.0	14
65	Titanium nanoholes meta-surface for ultra-broadband infrared absorption. Results in Physics, 2019, 15, 102578.	2.0	14
66	Silicon multi-resonant metasurface for full-spectrum perfect solar energy absorption. Solar Energy, 2020, 199, 360-365.	2.9	14
67	Optical properties of silicon nanocavity-coupled hybrid plasmonicâ€“photonic crystals in the optical region. Materials Letters, 2014, 118, 134-136.	1.3	13
68	High-quality multispectral bio-sensing with asymmetric all-dielectric meta-materials. Journal Physics D: Applied Physics, 2017, 50, 165106.	1.3	13
69	High-performance plasmonic oblique sensors for the detection of ions. Nanotechnology, 2020, 31, 285501.	1.3	13
70	Monochromatic filter with multiple manipulation approaches by the layered all-dielectric patch array. Nanotechnology, 2016, 27, 125202.	1.3	12
71	Improved Multispectral Antireflection and Sensing of Plasmonic Slits by Silver Mirror. IEEE Photonics Technology Letters, 2014, 26, 2111-2114.	1.3	11
72	Narrowband Light Total Antireflection and Absorption in Metal Filmâ€“Array Structures by Plasmonic Near-Field Coupling. Plasmonics, 2014, 9, 17-25.	1.8	11

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73	Optical cavity-assisted broadband optical transparency of a plasmonic metal film. Nanotechnology, 2015, 26, 185701.	1.3	11
74	Refractometric sensing of silicon layer coupled plasmonicâ€“colloidal crystals. Materials Letters, 2015, 140, 9-11.	1.3	11
75	High-quality Temperature Sensor Based on the Plasmonic Resonant Absorber. Plasmonics, 2019, 14, 279-283.	1.8	11
76	Multi-Band Near-Unity Absorption and Near-Zero Reflection of Optical Field in Metal-Dielectric-Metal Hybrid Crystals. Science of Advanced Materials, 2014, 6, 1099-1105.	0.1	11
77	Improving Plasmon Sensing Performance by Exploiting the Spatially Confined Field. Plasmonics, 2016, 11, 29-36.	1.8	10
78	Fabrication and infrared-transmission properties of monolayer hexagonal-close-packed metallic nanoshells. Optics Communications, 2013, 297, 194-197.	1.0	9
79	Strain-gradient facilitated formation of confined Ge/GeO₂nanoparticles with a cracked shell and enhanced two-photon absorption. Journal of Materials Chemistry C, 2014, 2, 8768-8772.	2.7	9
80	Multispectral Sharp Plasmon Resonances for Polarization-Manipulated Subtractive Polychromatic Filtering and Sensing. Plasmonics, 2015, 10, 821-830.	1.8	9
81	Enabling access to the confined optical field to achieve high-quality plasmon sensing. IEEE Photonics Technology Letters, 2015, , 1-1.	1.3	9
82	High-Quality Plasmon Sensing with Excellent Intensity Contrast by Dual Narrow-Band Light Perfect absorbers. Plasmonics, 2017, 12, 65-68.	1.8	9
83	Si nano-cavity enabled surface-enhanced Raman scattering signal amplification. Nanotechnology, 2019, 30, 465204.	1.3	9
84	Narrowband Light Reflection Resonances from Waveguide Modes for High-Quality Sensors. Nanomaterials, 2020, 10, 1966.	1.9	9
85	Ultra-narrowband resonant light absorber for high-performance thermal-optical modulators. Optics Express, 2021, 29, 31048.	1.7	9
86	Face features extraction based on multi-scale LBP. , 2010, , .		8
87	Improved Broadband Near-Unity Light Transparency of a Metal Layer With Film-Coupled Dual Plasmonic Arrays. IEEE Photonics Journal, 2013, 5, 4809011-4809011.	1.0	8
88	Multispectral optical enhanced transmission of a continuous metal film coated with a plasmonic core-shell nanoparticle array. Optics Communications, 2014, 316, 111-119.	1.0	8
89	A simple strategy for tuning the opaque metal film to BE optical transparency by the dielectric cavity. Materials Letters, 2015, 160, 518-521.	1.3	8
90	Geometric Phase of Two-Level Mixed State and Bloch Sphere Structure. International Journal of Theoretical Physics, 2013, 52, 3132-3140.	0.5	7

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91	Silicon-based light absorbers with unique polarization-adjusting effects. Journal Physics D: Applied Physics, 2019, 52, 505109.	1.3	7
92	Silicon Antennas Metasurface Based Light Absorber With Quantitatively Adjustable Operating Frequency and Intensity. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-6.	1.9	7
93	Nano-slit assisted high-Q photonic resonant perfect absorbers. Optics Express, 2021, 29, 5270.	1.7	7
94	Ultra-broadband solar light wave trapping by gradient cavity-thin-film metasurface. Journal Physics D: Applied Physics, 0, , .	1.3	7
95	Near-field plasmon effects in extraordinary optical transmission through periodic triangular hole arrays. Optical Engineering, 2014, 53, 107108.	0.5	6
96	Tunable extraordinary optical transmission of dielectric film-coupled metallo-dielectric crystals. Materials Letters, 2014, 126, 224-227.	1.3	6
97	Large-scale reflective optical Janus color materials. Nanotechnology, 2020, 31, 225301.	1.3	6
98	Cross-Shaped Titanium Resonators Based Metasurface for Ultra-Broadband Solar Absorption. IEEE Photonics Journal, 2021, 13, 1-8.	1.0	6
99	Broadband enhanced transmission in a film-array plasmonic structure through the plasmon coupling effects. Optics Communications, 2014, 315, 47-54.	1.0	5
100	Multispectral Broadband Light Transparency of a Seamless Metal Film Coated with Plasmonic Crystals. Plasmonics, 2014, 9, 615-622.	1.8	5
101	IIIâ€"V semiconductor resonators: A new strategy for broadband light perfect absorbers. Applied Physics Express, 2017, 10, 111201.	1.1	5
102	Silicon nano-cavity coupled metallo-dielectric colloidal crystals for narrow-band absorbers. Optical Materials, 2019, 91, 58-61.	1.7	5
103	Ultra-broadband electromagnetic wave absorber based on split-ring resonators. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 3573.	0.9	5
104	Fabrication and optical properties of novel plasmonic cone-shell crystal. Materials Letters, 2014, 134, 165-167.	1.3	4
105	Partially hollowed ultra-thin dielectric meta-surface for transmission manipulation. Optics Express, 2016, 24, 20580.	1.7	4
106	Aluminum and silicon hybrid nano-cavities for four-band, near-perfect light absorbers. Materials Letters, 2017, 194, 13-15.	1.3	4
107	Hybrid metal-semiconductor cavities for multi-band perfect light absorbers and excellent electric conducting interfaces. Journal Physics D: Applied Physics, 2017, 50, 335106.	1.3	4
108	A Facile Strategy for All-Optical Controlling Platform by Using Plasmonic Perfect Absorbers. Plasmonics, 2018, 13, 797-801.	1.8	4

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109	Solar energy full-spectrum perfect absorption and efficient photo-thermal generation*. Chinese Physics B, 2021, 30, 084206.	0.7	4
110	Super-Absorbers by Randomly Distributed Titanium Spheres. IEEE Photonics Technology Letters, 2021, 33, 247-250.	1.3	4
111	Ultrawideband midinfrared refractory absorbers. Optical Engineering, 2019, 58, 1.	0.5	4
112	Metal-free plasmonic refractory core-shell nanowires for tunable all-dielectric broadband perfect absorbers. Optics Express, 2020, 28, 37049.	1.7	4
113	Robust Optical Transparency of a Continuous Metal Film Sandwiched by Plasmonic Crystals. IEEE Photonics Technology Letters, 2014, 26, 1738-1741.	1.3	3
114	Making a Conducting Metal with Optical Transparency via Coupled Plasmonic-Photonic Nanostructures. Plasmonics, 2015, 10, 1195-1200.	1.8	3
115	A strategy for polarization-independent ultra-narrowband filters by sub-wavelength all-dielectric meta-materials. Materials Letters, 2016, 168, 44-47.	1.3	3
116	Common Metal-Dielectric-Metal Nanocavities for Multispectral Narrowband Light Absorption. Plasmonics, 2016, 11, 781-786.	1.8	3
117	Subradiant, Superradiant Plasmon Modes and Fano Resonance in a Multilayer Nanocylinder Array Standing on a Thin Metal Film. Plasmonics, 2016, 11, 683-688.	1.8	3
118	Multispectral subtractive filtering and optical hotspots by dielectric resonators. Materials Letters, 2017, 190, 198-200.	1.3	3
119	Ultra-sharp Plasmonic Super-cavity Resonance and Light Absorption. Plasmonics, 2020, 15, 11-19.	1.8	3
120	Silicon-Au nanowire resonators for high-Q multiband near-infrared wave absorption. Nanotechnology, 2020, 31, 375201.	1.3	3
121	Simultaneously achieved narrowband and ultra-broadband perfect absorption via plasmonic refractory-colloid crystals. Optics Communications, 2020, 475, 126255.	1.0	3
122	Dielectric shell modulated plasmonic crystal for novel light absorption meta-surface. Materials Letters, 2015, 158, 262-265.	1.3	2
123	Multi-Band Ultra-Sharp Transmission Response in All-Dielectric Resonant Structures Containing Kerr Nonlinear Media. Plasmonics, 2017, 12, 577-582.	1.8	2
124	Ultra-thin Semiconductor/Metal Resonant Superabsorbers. Plasmonics, 2019, 14, 1427-1433.	1.8	2
125	DVD assisted titanium metasurface for solar energy perfect absorption and potential applications for local thermal antibacterial treatment. Journal Physics D: Applied Physics, 2021, 54, 115106.	1.3	2
126	Efficient Optical Reflection Modulation by Coupling Interband Transition of Graphene to Magnetic Resonance in Metamaterials. Nanoscale Research Letters, 2019, 14, 391.	3.1	2

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127	Theoretical Study on Metasurfaces for Transverse Magneto-Optical Kerr Effect Enhancement of Ultra-Thin Magnetic Dielectric Films. Nanomaterials, 2021, 11, 2825.	1.9	2
128	Refractory Ti/TiN resonators based meta-surface for perfect light absorption. Journal Physics D: Applied Physics, 2020, 53, 485101.	1.3	2
129	Kerr nonlinear medium assisted double-face absorbers for differential manipulation via an all-optical operation. Optics Express, 2022, 30, 26597.	1.7	2
130	Continuous copper film structures with broadband optical transparency. Materials Letters, 2015, 139, 12-14.	1.3	1
131	Dielectric metamolecules with ultra-narrowband light transparency behaviors. Materials Letters, 2016, 178, 227-230.	1.3	1
132	Plasmonic crystals with sharp optical transmission behaviors. Materials Letters, 2016, 185, 519-522.	1.3	1
133	Polarization-adjusting ultra-narrow multi-band color filtering by dielectric metamaterials. IEEE Photonics Technology Letters, 2016, , 1-1.	1.3	1
134	Polarization-Induced Tunability of Plasmonic Light Absorption in Arrays of Sub-Wavelength Elliptical Disks. Plasmonics, 2016, 11, 79-86.	1.8	1
135	All-dielectric resonant cavity-enabled metals with broadband optical transparency. Nanotechnology, 2017, 28, 235202.	1.3	1
136	Tunable, large-scale and low-cost Si infrared absorbers. Journal Physics D: Applied Physics, 2019, 52, 465107.	1.3	1
137	Frequency-region quantitatively adjustable Si perfect absorbers. Applied Physics Express, 2019, 12, 102001.	1.1	1
138	Rapid and sensitive detection of 4-ethylbenzaldehyde by a plasmonic nose. Journal Physics D: Applied Physics, 2021, 54, 255306.	1.3	1
139	Asymmetric plasmonic-semiconductor cavities for angle-adjusted dual-band differential absorption responses. Optics Communications, 2021, 485, 126722.	1.0	1
140	High-Performance Electro-Optic Manipulation by Plasmonic Light Absorber With Nano-Cavity Field Confinement. IEEE Photonics Journal, 2021, 13, 1-9.	1.0	1
141	Selective Light Absorption and Spectral Manipulation via an Electro-Optical Nano-Cavity. IEEE Photonics Journal, 2022, 14, 1-6.	1.0	1
142	Coefficients' co-occurrence histogram of DWFT based feature extration with ONPP for face recognition. , 2009, , .		0
143	Texture analyse based on coefficients' relationship co-occurrence histogram. , 2009, , .		0
144	Double-spectral enhanced optical transmission via the hybridization of plasmon modes in nanohole and nanocube arrays. Laser Physics, 2014, 24, 125901.	0.6	0

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145	Enhanced Optical Transmission and Sensing of a Thin Metal Film Perforated with a Compound Subwavelength Circular Hole Array. Plasma Science and Technology, 2015, 17, 1027-1031.	0.7	0