Yuan-Fong Chau

List of Publications by Year
in descending order

131 papers	3,549 citations	57758 44 h-index	168389 53 g-index
134 all docs	134 docs citations	134 times ranked	1659 citing authors

#	Article	IF	Citations
1	Design of plasmonic toroidal metamaterials at optical frequencies. Optics Express, 2012, 20, 1760.	3.4	153
2	Near infrared surface-enhanced Raman scattering based on star-shaped gold/silver nanoparticles and hyperbolic metamaterial. Scientific Reports, 2017, 7, 5446.	3.3	88
3	Fabrication and Characterization of a Metallicâ€“Dielectric Nanorod Array by Nanosphere Lithography for Plasmonic Sensing Application. Nanomaterials, 2019, 9, 1691.	4.1	80
4	Perfect Dual-Band Absorber Based on Plasmonic Effect with the Cross-Hair/Nanorod Combination. Nanomaterials, 2020, 10, 493.	4.1	66
5	Ultra-High Refractive Index Sensing Structure Based on a Metal-Insulator-Metal Waveguide-Coupled T-Shape Cavity with Metal Nanorod Defects. Nanomaterials, 2019, 9, 1433.	4.1	65
6	Highly Sensitive and Tunable Plasmonic Sensor Based on a Nanoring Resonator with Silver Nanorods. Nanomaterials, 2020, 10, 1399.	4.1	65
7	High birefringence photonic crystal fiber with a complex unit cell of asymmetric elliptical air hole cladding. Applied Optics, 2007, 46, 5276.	2.1	64
8	High birefringence and low loss circular air-holes photonic crystal fiber using complex unit cells in cladding. Optics Communications, 2008, 281, 4334-4338.	2.1	62
9	Near-field optical properties and surface plasmon effects generated by a dielectric hole in a silver-shell nanocylinder pair. Applied Optics, 2008, 47, 5557.	2.1	61
10	Simultaneous realization of high sensing sensitivity and tunability in plasmonic nanostructures arrays. Scientific Reports, 2017, 7, 16817.	3.3	60
11	Depolying Tunable Metal-Shell/Dielectric Core Nanorod Arrays as the Virtually Perfect Absorber in the Near-Infrared Regime. ACS Omega, 2018, 3, 7508-7516.	3.5	60
12	Ultrawide Bandgap and High Sensitivity of a Plasmonic Metal-Insulator-Metal Waveguide Filter with Cavity and Baffles. Nanomaterials, 2020, 10, 2030.	4.1	59
13	Machine learning approaches to predict adsorption capacity of Azolla pinnata in the removal of methylene blue. Journal of the Taiwan Institute of Chemical Engineers, 2022, 132, 104134.	5.3	57
14	Metal nano-particles sizing by thermal annealing for the enhancement of surface plasmon effects in thin-film solar cells application. Optics Communications, 2016, 370, 85-90.	2.1	56
15	Highly Birefringent Index-Guiding Photonic Crystal Fiber with Squeezed Differently Sized Air-Holes in Cladding. Japanese Journal of Applied Physics, 2008, 47, 3755.	1.5	54
16	Fabrication of three dimensional split ring resonators by stress-driven assembly method. Optics Express, 2012, 20, 9415.	3.4	54
17	Tunable plasmonic resonance arising from broken-symmetric silver nanobeads with dielectric cores. Journal of Optics (United Kingdom), 2012, 14, 114010.	2.2	54
18	Plasmonics Effects of Nanometal Embedded in a Dielectric Substrate. Plasmonics, 2011, 6, 581-589.	3.4	53

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19	Plasmonic perfect absorber based on metal nanorod arrays connected with veins. Results in Physics, 2019, 15, 102567.	4.1	53
20	Three-dimensional analysis of surface plasmon resonance modes on a gold nanorod. Applied Optics, 2009, 48, 617.	2.1	52
21	Enhanced surface plasmon resonance based on the silver nanoshells connected by the nanobars. Optics Express, 2010, 18, 3510.	3.4	52
22	Electromagnetic energy vortex associated with sub-wavelength plasmonic Taiji marks. Optics Express, 2010, 18, 19665.	3.4	52
23	Surface Plasmon Resonances Effects on Different Patterns of Solid-silver and Silver-shell Nanocylindrical Pairs. Journal of Electromagnetic Waves and Applications, 2010, 24, 1005-1014.	1.6	51
24	Rapid fabrication of three-dimensional gold dendritic nanoforests for visible light-enhanced methanol oxidation. Electrochimica Acta, 2016, 192, 15-21.	5.2	51
25	Plasmonic effects in composite metal nanostructures for sensing applications. Journal of Nanoparticle Research, 2018, 20, 1.	1.9	51
26	Coupling technique for efficient interfacing between silica waveguides and planar photonic crystal circuits. Applied Optics, 2004, 43, 6656.	2.1	50
27	Three-dimensional analysis of silver nano-particles doping effects on super resolution near-field structure. Optics Communications, 2007, 269, 389-394.	2.1	50
28	Surface Plasmon Effects Excited by the Dielectric Hole in a Silver-Shell Nanospherical Pair. Plasmonics, 2009, 4, 253-259.	3.4	50
29	Surface plasmon resonance in a hexagonal nanostructure formed by seven core shell nanocylinders. Applied Optics, 2010, 49, 920.	2.1	50
30	Structurally and materially sensitive hybrid surface plasmon modes in periodic silver-shell nanopearl and its dimer arrays. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	50
31	Analysis of transmittance properties of surface plasmon modes on periodic solid/outline bowtie nanoantenna arrays. Physics of Plasmas, 2013, 20, .	1.9	50
32	Plasmonic refractive index sensor based on the combination of rectangular and circular resonators including baffles. Chinese Journal of Physics, 2021, 71, 286-299.	3.9	50
33	Three-Dimensional Analysis of Scattering Field Interactions and Surface Plasmon Resonance in Coupled Silver Nanospheres. Plasmonics, 2008, 3, 157-164.	3.4	49
34	A COMPARATIVE STUDY OF HIGH BIREFRINGENCE AND LOW CONFINEMENT LOSS PHOTONIC CRYSTAL FIBER EMPLOYING ELLIPTICAL AIR HOLES IN FIBER CLADDING WITH TETRAGONAL LATTICE. Progress in Electromagnetics Research B, 2010, 22, 39-52.	1.0	49
35	Tailoring surface plasmon resonance and dipole cavity plasmon modes of scattering cross section spectra on the single solid-gold/gold-shell nanorod. Journal of Applied Physics, 2016, 120, .	2.5	49
36	50â^•50 beam splitter using a one-dimensional metal photonic crystal with parabolalike dispersion. Applied Physics Letters, 2007, 90, 251909.	3.3	48

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37	A New Type of Optical Antenna: Plasmonics Nanoshell Bowtie Antenna with Dielectric Hole. Journal of Electromagnetic Waves and Applications, 2010, 24, 1621-1632.	1.6	48
38	A comparative study of solid-silver and silver-shell nanodimers on surface plasmon resonances. Journal of Nanoparticle Research, 2011, 13, 637-644.	1.9	48
39	Significantly Enhanced Birefringence of Photonic Crystal Fiber Using Rotational Binary Unit Cell in Fiber Cladding. Japanese Journal of Applied Physics, 2007, 46, L1048.	1.5	47
40	Surface plasmon effects excitation from three-pair arrays of silver-shell nanocylinders. Physics of Plasmas, 2009, 16, .	1.9	47
41	LOCALIZED RESONANCE OF COMPOSITE CORE-SHELL NANOSPHERES, NANOBARS AND NANOSPHERICAL CHAINS. Progress in Electromagnetics Research B, 2011, 28, 183-199.	1.0	47
42	Design of high birefringence and low confinement loss photonic crystal fibers with five rings hexagonal and octagonal symmetry air-holes in fiber cladding. Journal of Applied Physics, 2011, 109, .	2.5	47
43	Plasmonic spectrum on 1D and 2D periodic arrays of rod-shape metal nanoparticle pairs with different core patterns for biosensor and solar cell applications. Journal of Optics (United Kingdom), 2016, 18, 115003.	2.2	47
44	Tunable Optical Performances on a Periodic Array of Plasmonic Bowtie Nanoantennas with Hollow Cavities. Nanoscale Research Letters, 2016, 11, 411.	5.7	47
45	Manipulating near field enhancement and optical spectrum in a pair-array of the cavity resonance based plasmonic nanoantennas. Journal Physics D: Applied Physics, 2016, 49, 475102.	2.8	46
46	Radome slope compensation using multiple-model Kalman filters. Journal of Guidance, Control, and Dynamics, 1995, 18, 637-640.	2.8	45
47	Significantly enhanced coupling effect and gap plasmon resonance in a MIM-cavity based sensing structure. Scientific Reports, 2021, 11, 18515.	3.3	45
48	Mid-infrared sensing properties of a plasmonic metalâ€“insulatorâ€“metal waveguide with a single stub including defects. Journal Physics D: Applied Physics, 2020, 53, 115401.	2.8	44
49	Highly sensitive metal-insulator-metal plasmonic refractive index sensor with a centrally coupled nanoring containing defects. Journal Physics D: Applied Physics, 2021, 54, 115301.	2.8	42
50	Strong and tunable plasmonic field coupling and enhancement generating from the protruded metal nanorods and dielectric cores. Results in Physics, 2019, 13, 102290.	4.1	38
51	Effect of internal period on the optical dispersion of indefinite-medium materials. Physical Review B, 2008, 77, .	3.2	37
52	Design of crossing metallic metasurface arrays based on high sensitivity of gap enhancement and transmittance shift for plasmonic sensing applications. Journal Physics D: Applied Physics, 2017, 50, 045105.	2.8	37
53	Evolution of the complete photonic bandgap of two-dimensional photonic crystal. Optics Express, 2011, 19, 4862.	3.4	36
54	The Use of Gigantochloa Bamboo-Derived Biochar for the Removal of Methylene Blue from Aqueous Solution. Adsorption Science and Technology, 2022, 2022, .	3.2	36

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55	Ultra-broad bandgap metal-insulator-metal waveguide filter with symmetrical stubs and defects. Results in Physics, 2020, 17, 103116.	4.1	35
56	Improved Refractive Index-Sensing Performance of Multimode Fano-Resonance-Based Metal-Insulator-Metal Nanostructures. Nanomaterials, 2021, 11, 2097.	4.1	30
57	Tunable silver-shell dielectric core nano-beads array for thin-film solar cell application. Journal of Nanoparticle Research, 2016, 18, 1.	1.9	28
58	Review of Experimental Setups for Plasmonic Photocatalytic Reactions. Catalysts, 2020, 10, 46.	3.5	28
59	Magnetic Field-Enhancing Photocatalytic Reaction in Micro Optofluidic Chip Reactor. Nanoscale Research Letters, 2019, 14, 323.	5.7	27
60	Controlling surface plasmon of several pair arrays of silver-shell nanocylinders. Applied Optics, 2010, 49, 1163.	2.1	26
61	Multiple Fano resonance modes in an ultra-compact plasmonic waveguide-cavity system for sensing applications. Results in Physics, 2021, 27, 104527.	4.1	25
62	Enhancing plasmonic effect in periodic nanometal square prisms with fences and cavities for refractive index and temperature sensing applications. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	23
63	Enhanced photoluminescence of DCJTB with ordered Ag-SiO2 coreâ€“shell nanostructures via nanosphere lithography. Results in Physics, 2020, 17, 103168.	4.1	23
64	Buried Effects of Surface Plasmon Resonance Modes for Periodic Metalâ€“Dielectric Nanostructures Consisting of Coupled Spherical Metal Nanoparticles with Cylindrical Pore Filled with a Dielectric. Plasmonics, 2014, 9, 1-9.	3.4	22
65	Gap enhancement and transmittance spectra of a periodic bowtie nanoantenna array buried in a silica substrate. Optics Communications, 2014, 324, 227-233.	2.1	20
66	Ultrahigh Sensitivity of a Plasmonic Pressure Sensor with a Compact Size. Nanomaterials, 2021, 11, 3147.	4.1	19
67	Biosensing on a Plasmonic Dual-Band Perfect Absorber Using Intersection Nanostructure. ACS Omega, 2022, 7, 1139-1149.	3.5	18
68	Effective Coupling of Incident Light Through an Air Region into an S-Shape Plasmonic Ag Nanowire Waveguide with Relatively Long Propagation Length. Plasmonics, 2014, 9, 573-579.	3.4	17
69	Plasmon field enhancement in silver core-protruded silicon shell nanocylinder illuminated with light at 633nm. Applied Optics, 2010, 49, 6295.	2.1	16
70	Complete bandgap arising from the effects of hollow, veins, and intersecting veins in a square lattice of square dielectric rods photonic crystal. Applied Physics Letters, 2011, 98, 263115.	3.3	15
71	Imaging Properties of Three Dimensional Aperture Near-Field Scanning Optical Microscopy and Optimized Near-Field Fiber Probe Designs. Japanese Journal of Applied Physics, 2004, 43, 8115-8125.	1.5	14
72	Numerical Investagation of a Castle-like Contour Plasmonic Nanoantenna with Operating Wavelengths Ranging in Ultravioletâ€“Visible, Visible Light, and Infrared Light. Plasmonics, 2013, 8, 755-761.	3.4	14

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73	Reusable TiN Substrate for Surface Plasmon Resonance Heterodyne Phase Interrogation Sensor. Nanomaterials, 2020, 10, 1325.	4.1	14
74	Multiple-Mode Bowtie Cavities for Refractive Index and Glucose Sensors Working in Visible and Near-infrared Wavelength Ranges. Plasmonics, 2021, 16, 1633-1644.	3.4	14
75	Mid infrared sensing structure based on a metalâ€“insulatorâ€“metal waveguides with a triangular-shaped resonator. Optics Communications, 2022, 516, 128282.	2.1	14
76	A simple structure of all circular-air-holes photonic crystal fiber for achieving high birefringence and low confinement loss. Journal of Applied Physics, 2015, 118, 243102.	2.5	13
77	Breaking the Symmetry of a Metalâ€“Insulatorâ€“Metal-Based Resonator for Sensing Applications. Nanoscale Research Letters, 2022, 17, 48.	5.7	12
78	Intersecting veins effects of a two-dimensional photonic crystal with a large two-dimensional complete bandgap. Optics Communications, 2009, 282, 4296-4298.	2.1	11
79	Localized surface plasmon resonance enhanced by the light-scattering property of silver nanoparticles for improved luminescence of polymer light-emitting diodes. Journal of Industrial and Engineering Chemistry, 2021, 103, 283-291.	5.8	10
80	Plasmonic effects arising from a grooved surface of a gold nanorod. Journal Physics D: Applied Physics, 2017, 50, 125302.	2.8	8
81	Theoretical Study of CO Adsorption Interactions with Cr-Doped Tungsten Oxide/Graphene Composites for Gas Sensor Application. ACS Omega, 2022, 7, 528-539.	3.5	8
82	Long-ranging propagation based on resonant coupling effects using a series connection of ten nanoshells in a plasmon waveguide. Applied Optics, 2012, 51, 640.	1.8	7
83	Deposition of Ta 2 O 5 upon silver nanorods as an ultra-thin light absorber. Thin Solid Films, 2014, 567, 38-46.	1.8	7
84	Light energy transformation over a few nanometers. Journal Physics D: Applied Physics, 2017, 50, 375601.	2.8	7
85	A multichannel color filter with the functions of optical sensor and switch. Scientific Reports, 2021, 11, 22910.	3.3	7
86	Near-field optics simulation of a solid immersion lens combining with a conical probe and a highly efficient solid immersion lens-probe system. Journal of Applied Physics, 2004, 95, 3378-3384.	2.5	6
87	Efficient mode coupling technique between photonic crystal heterostructure waveguide and silica waveguides. Optics Communications, 2005, 253, 308-314.	2.1	6
88	Highly enhanced surface plasmon resonance in a coupled silver nanodumbbell. Applied Physics A: Materials Science and Processing, 2011, 104, 801-805.	2.3	6
89	Numerical investigation of birefringence and confinement loss formed by rectangular/elliptical/circular air holes photonic crystal fibers. Journal of Modern Optics, 2011, 58, 1673-1677.	1.3	6
90	Numerical investigation of surface plasmon resonance effects on photocatalytic activities using silver nanobeads photodeposited onto a titanium dioxide layer. Optics Communications, 2014, 331, 223-228.	2.1	6

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91	A Theoretical Insight of Cr Dopant in Tungsten Oxide for Gas Sensor Application. Materials Today Communications, 2021, 28, 102508.	1.9	6
92	Tunable plasmonic effects arising from metalâ€“dielectric nanorods. Applied Optics, 2019, 58, 2530.	1.8	6
93	Analysis of High Birefringence of Four Types of Photonic Crystal Fiber by Combining Circular and Elliptical Air Holes in Fiber Cladding. Advances in Nonlinear Optics, 2008, 2008, 1-6.	0.6	5
94	Dispersion properties, birefringence and confinement loss of rotational elliptic air-hole photonic crystal fiber. Applied Physics A: Materials Science and Processing, 2011, 104, 857-861.	2.3	5
95	Enhanced photoluminescence and shortened lifetime of DCJTB by photoinduced metal deposition on a ferroelectric lithography substrate. Scientific Reports, 2022, 12, 6173.	3.3	5
96	Significantly Enhanced Coupling Efficiency in 2D Photonic Crystal Waveguides by Using Cabin-Side-Like Tapered Structures at Two Terminals. Japanese Journal of Applied Physics, 2004, 43, L1064-L1067.	1.5	4
97	Near-Field Optics Imaging in Silica Waveguide Using Near-Field Scanning Optical Microscope. Japanese Journal of Applied Physics, 2007, 46, 238-242.	1.5	4
98	THEORETICAL ANALYSIS OF SUB-WAVELENGTH LIGHT PROPAGATION THROUGH THE DOUBLE-CHAIN SILVER NANORINGS. Progress in Electromagnetics Research, 2013, 133, 331-346.	4.4	4
99	Plasmonic effects in the enclosed and opened metallodielectric bowtie nanostructures. Optics Communications, 2019, 450, 180-189.	2.1	4
100	A Study of Controlling Color Mixing of Red, Green, and Blue LEDs Based on Photometry Theory. Sensor Letters, 2012, 10, 1056-1062.	0.4	4
101	The optical properties between an incident wave and the active layer of a bubble-pit AgOx-type super-resolution near-field structure. Applied Physics A: Materials Science and Processing, 2007, 89, 381-385.	2.3	3
102	Two-Dimensional and Three-Dimensional Analysis of Taper Structures for Coupling into and out of Photonic Crystal Slab Waveguides. Japanese Journal of Applied Physics, 2006, 45, 7746-7752.	1.5	2
103	The plasmon and distribution effects between incident light and active layer in PtOx-type super-resolution near-field structure. Optics Communications, 2008, 281, 1293-1299.	2.1	2
104	Manipulation of subwavelength optical fields and resonant field enhancements of a silver-shell nanocylinder pair and chain waveguides with different coreâ€“shell patterns. Journal of Nanoparticle Research, 2011, 13, 3939-3949.	1.9	2
105	A COMPACT 90Â° BENT EQUAL OUTPUT PORTS OF PHOTONIC CRYSTAL BEAM SPLITTER WITH COMPLETE BAND GAP BASED ON DEFECT RESONANCE INTERFACE. Progress in Electromagnetics Research M, 2012, 27, 231-240.	0.9	2
106	Design of a high-birefringence photonic crystal fiber using an asymmetric defect in the fiber core. , 2014, , .		2
107	Comparative study of low-frequency noise in 0.18 Î¼m and 0.35 Î¼m gate-length nMOSFETs with gate area of 1.1 Î¼m2. Microelectronics Reliability, 2016, 60, 10-15.	1.7	2
108	Numerical Analysis on Birefringence of Photonic Crystal Fiber by Tuning Patterns and Infiltrating Materials of Innermost Air Holes. Japanese Journal of Applied Physics, 2013, 52, 062502.	1.5	2

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109	Resonant enhancement of photoluminescence from dye molecules in lithium niobate substrate using photoinduced silver deposition with concentration dependence. Results in Physics, 2022, 39, 105751.	4.1	2
110	Deformation and Plasmon Effects of Deformed AgOx-Type Super-Resolution Near-Field Structure. Japanese Journal of Applied Physics, 2006, 45, 7228-7230.	1.5	1
111	Ultrahigh Birefringence with Ultralow Confinement Loss of Photonic Crystal Fibers. , 2010, , .		1
112	Investigation of plasmonic effects on the metal nanoparticle arrays for biosensor applications. IOP Conference Series: Materials Science and Engineering, 2017, 191, 012016.	0.6	1
113	Intriguing Standing Wave Numbers and Plasmonic Effects on the Solid-Metal/Metal-Shell Nanorod Surface. Plasmonics, 2017, 12, 277-285.	3.4	1
114	A Comparative Study of Visible Raman Scattering of Ceria Prepared by Sol-gel and Hydrothermal Techniques with Gold Nanoparticles. IOP Conference Series: Materials Science and Engineering, 2018, 409, 012012.	0.6	1
115	Crystal Structure, Surface Topography, Surface Morphology and Optical Properties of DC Magnetron Sputtered VO₂ Thin Films using VO₂ Target. IOP Conference Series: Materials Science and Engineering, 2018, 409, 012025.	0.6	1
116	Raman Spectrometry of Scattering of Nano-Gold Ceria Films. Advanced Science Letters, 2018, 24, 8940-8943.	0.2	1
117	Plasmon waveguide consisting of silver nanoshell nanocylinders. , 2011, , .		0
118	Toroidal and magnetic spectral responses of four split-ring resonators. , 2011, , .		0
119	Numerical Investigations on Birefringent Holey Fibers by Modified Elliptical Air Holes in Fiber Cladding. Japanese Journal of Applied Physics, 2011, 50, 112502.	1.5	0
120	Numerical investigation of series connection of nanoshells in plasmon waveguide. , 2012, , .		0
121	Analysis of four patterns of photonic crystal fibers with ultrahigh birefrigence. , 2012, , .		0
122	Photonic Crystals with Large Complete Bandgap Composed of an Approximately Ordered Array of Laurel-Crown-Like Structures Fabricated by Employing Anodic Aluminum Oxide Template. Japanese Journal of Applied Physics, 2013, 52, 010206.	1.5	0
123	Z-Axis Displacement Sensor Based on Total-Internal Reflection and Surface Plasmon Resonance in Heterodyne Interferometry. Advanced Materials Research, 0, 746, 564-569.	0.3	0
124	Numerical analysis of surface plasmon resonance effects on a rotational silver nanorod/nanoshell dimer. Proceedings of SPIE, 2013, , .	0.8	0
125	Comparison of surface plasmon resonance effects between solid silver and silver-shell nanoparticles in active layer of AgO_x-type super-resolution near-field structure. Proceedings of SPIE, 2013, , .	0.8	0
126	ANALYSIS OF A WIDE SPECTRAL RANGE PLASMONIC OUTLINE BOWTIE ANTENNA RANGING IN 0.3-5.0 Î¼m. Progress in Electromagnetics Research, 2013, 134, 525-542.	4.4	0

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127	Design of a dielectric hole plasmonic nanoantenna with broad wavelength range. , 2014, , .		0
128	Design of an Ag Plasmonic Nanowire Waveguide with Long Propagation Distance. International Journal of Signal Processing Systems, 2014, 3, .	0.4	0
129	Resonant optical transmission through the sub-wavelength air-hole arrays in a gold thin film for sensing applications. IOP Conference Series: Materials Science and Engineering, 2018, 409, 012011.	0.6	0
130	Plasmonic Toroidal Response of four U-shaped resonant rings at Optical Frequencies. , 2011, , .		0
131	Numerical Investigations on Birefringent Holey Fibers by Modified Elliptical Air Holes in Fiber Cladding. Japanese Journal of Applied Physics, 2011, 50, 112502.	1.5	0