Lai-Kwan Chau

List of Publications by Year
in descending order

109 papers	3,533 citations	117625 34 h-index	149698 56 g-index
111 all docs	111 docs citations	111 times ranked	3661 citing authors

#	Article	IF	Citations
1	Versatile Thiol- and Amino-Functionalized Silatranes for in-situ polymerization and Immobilization of Gold Nanoparticles. Journal of the Taiwan Institute of Chemical Engineers, 2022, 132, 104129.	5.3	6
2	Quantitative and amplification-free detection of SOCS-1 CpG methylation percentage analyses in gastric cancer by fiber optic nanoplasmonic biosensor. Biosensors and Bioelectronics, 2022, 214, 114540.	10.1	8
3	Gold nanorods conjugated upconversion nanoparticles nanocomposites for simultaneous bioimaging, local temperature sensing and photothermal therapy of OML-1 oral cancer cells. International Journal of Smart and Nano Materials, 2021, 12, 49-71.	4.2	16
4	Dual-functional goldâ€“iron oxide coreâ€“satellite hybrid nanoparticles for sensitivity enhancement in biosensors via nanoplasmonic and preconcentration effects. Analyst, The, 2021, 146, 6935-6943.	3.5	8
5	Integrated Graphene Oxide with Noble Metal Nanoparticles to Develop High-Sensitivity Fiber Optic Particle Plasmon Resonance (FOPPR) Biosensor for Biomolecules Determination. Nanomaterials, 2021, 11, 635.	4.1	6
6	MutS protein-based fiber optic particle plasmon resonance biosensor for detecting single nucleotide polymorphisms. Analytical and Bioanalytical Chemistry, 2021, 413, 3329-3337.	3.7	14
7	Detection of Hg(II) at Part-Per-Quadrillion Levels by Fiber Optic Plasmonic Absorption Using DNA Hairpin and DNA-Gold Nanoparticle Conjugates. ACS Applied Nano Materials, 2021, 4, 10128-10135.	5.0	13
8	Fiber optic nanogold-linked immunosorbent assay for rapid detection of procalcitonin at femtomolar concentration level. Biosensors and Bioelectronics, 2020, 151, 111871.	10.1	58
9	Label-free SERS characterization of snake venoms by exploring the cysteine environs with bone-shaped gold nanoparticles. Journal of Materials Chemistry B, 2020, 8, 10744-10753.	5.8	3
10	Integration of a Thermoelectric Heating Unit with Ionic Wind-Induced Droplet Centrifugation Chip to Develop Miniaturized Concentration Device for Rapid Determination of Salmonella on Food Samples Using Antibody-Functionalized SERS Tags. Sensors, 2020, 20, 7177.	3.8	4
11	Controlled Silanization: High Molecular Regularity of Functional Thiol Groups on Siloxane Coatings. Langmuir, 2020, 36, 5935-5943.	3.5	26
12	Fiber Optic Particle Plasmon Resonance Biosensor for Label-Free Detection of Nucleic Acids and Its Application to HLA-B27 mRNA Detection in Patients with Ankylosing Spondylitis. Sensors, 2020, 20, 3137.	3.8	11
13	A fiber optic nanoplasmonic biosensor for the sensitive detection of ampicillin and its analogs. Mikrochimica Acta, 2020, 187, 396.	5.0	19
14	Development of microfluidic concentrator using ion concentration polarization mechanism to assist trapping magnetic nanoparticle-bound miRNA to detect with Raman tags. Biomicrofluidics, 2020, 14, 014102.	2.4	10
15	Fiber optic particle plasmon resonance immunosensor for rapid and sensitive detection of methamphetamine based on competitive inhibition. Microchemical Journal, 2020, 157, 105026.	4.5	19
16	Low-cost planar waveguide-based optofluidic sensor for real-time refractive index sensing. Optics Express, 2020, 28, 27337.	3.4	23
17	Functional Biointerfaces Based on Mixed Zwitterionic Self-Assembled Monolayers for Biosensing Applications. Langmuir, 2019, 35, 1652-1661.	3.5	44
18	Electrohydrodynamically enhanced drying droplets for concentration of Salmonella bacteria prior to their detections using antibody-functionalized SERS-reporter submicron beads. Sensors and Actuators B: Chemical, 2019, 283, 384-389.	7.8	14

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19	Enhancing Upconversion Luminescence Emission of Rare Earth Nanophosphors in Aqueous Solution with Thousands Fold Enhancement Factor by Low Refractive Index Resonant Waveguide Grating. ACS Photonics, 2018, 5, 3263-3271.	6.6	25
20	Optofluidic refractive-index sensors employing bent waveguide structures for low-cost, rapid chemical and biomedical sensing. Optics Express, 2018, 26, 273.	3.4	23
21	Effect of Surface Coverage of Gold Nanoparticles on the Refractive Index Sensitivity in Fiber-Optic Nanoplasmonic Sensing. Sensors, 2018, 18, 1759.	3.8	36
22	Corona-induced micro-centrifugal flows for concentration of Neisseria and Salmonella bacteria prior to their quantitation using antibody-functionalized SERS-reporter nanobeads. Mikrochimica Acta, 2017, 184, 1021-1028.	5.0	16
23	Intensity-detection-based guided-mode-resonance optofluidic biosensing system for rapid, low-cost, label-free detection. Sensors and Actuators B: Chemical, 2017, 250, 659-666.	7.8	39
24	Effect of elimination on antifouling and pH-responsive properties of carboxybetaine materials. Chemical Communications, 2017, 53, 9143-9146.	4.1	12
25	Facile Functionalization of Polymer Surfaces in Aqueous and Polar Organic Solvents via 3-Mercaptopropylsilatrane. ACS Applied Materials & Interfaces, 2016, 8, 34159-34169.	8.0	24
26	Fabrication of titania inverse opals by multi-cycle dip-infiltration for optical sensing. Photonics and Nanostructures - Fundamentals and Applications, 2016, 19, 48-54.	2.0	12
27	Self-referencing fiber optic particle plasmon resonance sensing system for real-time biological monitoring. Talanta, 2016, 146, 291-298.	5.5	30
28	Novel Method for Differentiating Histological Types of Gastric Adenocarcinoma by Using Confocal Raman Microspectroscopy. PLoS ONE, 2016, 11, e0159829.	2.5	13
29	Role of medial abrasion phenomenon in the pathogenesis of knee osteoarthritis. Medical Hypotheses, 2015, 85, 207-211.	1.5	2
30	Enhanced sensitivity in injection-molded guided-mode-resonance sensors via low-index cavity layers. Optics Express, 2015, 23, 14850.	3.4	29
31	A low cost, label-free biosensor based on a novel double-sided grating waveguide coupler with sub-surface cavities. Sensors and Actuators B: Chemical, 2015, 206, 371-380.	7.8	28
32	Biosensors: Onâ€line SERS Detection of Single Bacterium Using Novel SERS Nanoprobes and A Microfluidic Dielectrophoresis Device (Small 22/2014). Small, 2014, 10, 4414-4414.	10.0	2
33	A New Surface Modifying Material "Mercaptosilatrane" for Particle Plasmon Resonance Sensor. Key Engineering Materials, 2014, 605, 123-126.	0.4	1
34	Direct detection of orchid viruses using nanorod-based fiber optic particle plasmon resonance immunosensor. Biosensors and Bioelectronics, 2014, 51, 371-378.	10.1	113
35	Silanization of solid surfaces via mercaptopropylsilatrane: a new approach of constructing gold colloid monolayers. RSC Advances, 2014, 4, 46527-46535.	3.6	55
36	Single-step approach for fabrication of vancomycin-bonded silica monolith as chiral stationary phase. Journal of Chromatography A, 2014, 1358, 208-216.	3.7	22

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37	Onâ€line SERS Detection of Single Bacterium Using Novel SERS Nanoprobes and A Microfluidic Dielectrophoresis Device. Small, 2014, 10, 4700-4710.	10.0	100
38	Using A Fiber Optic Particle Plasmon Resonance Biosensor To Determine Kinetic Constants of Antigenâ€“Antibody Binding Reaction. Analytical Chemistry, 2013, 85, 245-250.	6.5	43
39	Tubular optical waveguide particle plasmon resonance biosensor for multiplex real-time and label-free detection. Proceedings of SPIE, 2013, , .	0.8	0
40	Highly sensitive fiber-optic particle plasmon resonance refractive index sensor based on spatial light modulation technology. , 2013, , .		0
41	Nonspecific binding removal and specific binding regeneration using longitudinal acoustic waves. RSC Advances, 2013, 3, 16159.	3.6	2
42	Quantification of tumor necrosis factor-Î± and matrix metalloproteinases-3 in synovial fluid by a fiber-optic particle plasmon resonance sensor. Analyst, The, 2013, 138, 4599.	3.5	51
43	Tubular waveguide evanescent field absorption biosensor based on particle plasmon resonance for multiplex label-free detection. Biosensors and Bioelectronics, 2013, 41, 268-274.	10.1	7
44	Multianalyte detection using fiber optic particle plasmon resonance sensor based on plasmonic light scattering interrogation. , 2013, , .		0
45	Multiplex fiber-optic biosensor using multiple particle plasmon resonances. , 2012, , .		1
46	Doubly resonant surface-enhanced Raman scattering on gold nanorod decorated inverse opal photonic crystals. Optics Express, 2012, 20, 29266.	3.4	32
47	Multiple resonance fiber-optic sensor with time division multiplexing for multianalyte detection. Optics Letters, 2012, 37, 3969.	3.3	27
48	On-chip SERS analysis for single mimic pathogen detection using Raman-labeled nanoaggregate-embedded beads with a dielectrophoretic chip. Proceedings of SPIE, 2012, , .	0.8	0
49	Tubular optical waveguide-based particle plasmon resonance biosensor for label-free and real-time detection. , 2012, , .		0
50	Fabrication and characterization of a fused silica-based optical waveguide with femtosecond fiber laser pulses. Microsystem Technologies, 2012, 18, 1815-1821.	2.0	3
51	μ-TAS for label-free biosensing with double-sided grating waveguide. , 2012, , .		0
52	Synthesis of silica-coated gold nanorod as Raman tags by modulating cetyltrimethylammonium bromide concentration. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 409, 61-68.	4.7	28
53	Fiber optic particle plasmon resonance sensor based on plasmonic light scattering interrogation. Annalen Der Physik, 2012, 524, 705-712.	2.4	2
54	Silica encapsulated SERS nanoprobe conjugated to the bacteriophage tailspike protein for targeted detection ofSalmonella. Chemical Communications, 2012, 48, 1024-1026.	4.1	63

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55	Improved performance of aminopropylsilatrane over aminopropyltriethoxysilane as a linker for nanoparticle-based plasmon resonance sensors. Sensors and Actuators B: Chemical, 2012, 163, 207-215.	7.8	38
56	Low cost, rapid fabrication of durable molds of grating arrays for nanoimprint lithography. Microelectronic Engineering, 2011, 88, 3062-3066.	2.4	4
57	A Fiber Optic Particle Plasmon Resonance Biosensing Platform Based on Detection of Light Scattering Intensity from the Proximal End. Journal of the Chinese Chemical Society, 2011, 58, 786-792.	1.4	3
58	Integration of fiber optic-particle plasmon resonance biosensor with microfluidic chip. Analytica Chimica Acta, 2011, 697, 75-82.	5.4	57
59	A novel dual-channel fiber-optic particle plasmon resonance sensor realized by CO<inf>2</inf> laser engraving. , 2011, , .		0
60	Fiber-optic particle plasmon resonance sensor for detection of interleukin-1Î² in synovial fluids. Biosensors and Bioelectronics, 2010, 26, 1036-1042.	10.1	65
61	Novel U-shape gold nanoparticles-modified optical fiber for localized plasmon resonance chemical sensing. Microsystem Technologies, 2010, 16, 1207-1214.	2.0	26
62	Nanoaggregate Embedded Beads as SERS Nanosensor for Multiplexed Pathogen Detection. , 2010, , .		0
63	Using ac-Field-Induced Electro-osmosis to Accelerate Biomolecular Binding in Fiber-Optic Sensing Chips with Microstructures. Analytical Chemistry, 2010, 82, 1123-1127.	6.5	12
64	Multimode fiber Mach-Zehnder interferometer for measurement of refractive index. , 2010, , .		2
65	Novel D-type Fiber Optic Localized Plasmon Resonance Sensor Realized by Femtosecond Laser Engraving. Journal of Laser Micro Nanoengineering, 2010, 5, 1-5.	0.1	14
66	A Novel Design of Grooved Fibers for Fiber-Optic Localized Plasmon Resonance Biosensors. Sensors, 2009, 9, 6456-6470.	3.8	21
67	Nanoaggregateâ€Embedded Beads as Novel Raman Labels for Biodetection. Advanced Functional Materials, 2009, 19, 242-248.	14.9	83
68	Singleâ€Domain Antibodyâ€Conjugated Nanoaggregateâ€Embedded Beads for Targeted Detection of Pathogenic Bacteria. Chemistry - A European Journal, 2009, 15, 9330-9334.	3.3	60
69	Hybrid surface-enhanced Raman scattering substrate from gold nanoparticle and photonic crystal: Maneuverability and uniformity of Raman spectra. Optics Express, 2009, 17, 21522.	3.4	28
70	Singleâ€step approach to Î²â€cyclodextrinâ€bonded silica as monolithic stationary phases for CEC. Journal of Separation Science, 2008, 31, 1819-1827.	2.5	31
71	Nickel hexacyanoferrate multilayers on functionalized mesoporous silica supports for selective sorption and sensing of cesium. Microporous and Mesoporous Materials, 2008, 109, 505-512.	4.4	87
72	Using nonlinear ac electrokinetics vortex flow to enhance catalytic activities of sol-gel encapsulated trypsin in microfluidic devices. Biomicrofluidics, 2007, 1, 34104.	2.4	4

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73	Amperometricl-Lactate Sensor Based on Solâ˜Gel Processing of an Enzyme-Linked Silicon Alkoxide. Analytical Chemistry, 2007, 79, 3757-3763.	6.5	41
74	Sensing capability of the localized surface plasmon resonance of gold nanorods. Biosensors and Bioelectronics, 2007, 22, 926-932.	10.1	231
75	Detection of antinuclear antibodies by a colloidal gold modified optical fiber: comparison with ELISA. Analytical and Bioanalytical Chemistry, 2007, 388, 901-907.	3.7	48
76	Solâ€“gel monolithic anion-exchange column for capillary electrochromatography. Analytica Chimica Acta, 2006, 576, 117-123.	5.4	28
77	Fiber-optic chemical and biochemical probes based on localized surface plasmon resonance. Sensors and Actuators B: Chemical, 2006, 113, 100-105.	7.8	200
78	Fiber-optic biochemical sensing with a colloidal gold-modified long period fiber grating. Sensors and Actuators B: Chemical, 2006, 119, 105-109.	7.8	116
79	Fiber optic biochemical sensing using colloidal gold-modified long period fiber grating. , 2005, , .		0
80	Solâ€“Gel-Coated Poly(methyl methacrylate) as a Substrate for Localized Surface Plasmon Resonance Biosensors. Journal of Biomedical Nanotechnology, 2005, 1, 143-150.	1.1	10
81	Electrochemical behavior of an anion-exchanger modified electrode prepared by solâ€“gel processing of an organofunctional silicon alkoxide. Electrochimica Acta, 2004, 49, 573-580.	5.2	20
82	Colloidal Gold-Modified Optical Fiber for Chemical and Biochemical Sensing. Analytical Chemistry, 2003, 75, 16-21.	6.5	285
83	Langmuirâ€Blodgett Films of Alkanethiolate Gold Nanorods. Journal of the Chinese Chemical Society, 2003, 50, 1015-1021.	1.4	2
84	SolÃ¢Â€Â“gel encapsulation of lactate dehydrogenase for optical sensing of ?-lactate. Biosensors and Bioelectronics, 2002, 17, 323-330.	10.1	63
85	Electroosmotic flow controllable coating on a capillary surface by a solâ€“gel process for capillary electrophoresis. Journal of Chromatography A, 2002, 952, 255-266.	3.7	22
86	Fiber-Optic Evanescent-Wave Absorption Copper(II) Sensor Based on Sol-Gel-Derived Organofunctionalized Silica Cladding. Applied Spectroscopy, 2001, 55, 1320-1326.	2.2	8
87	Anion-Exchange Material with pH-Switchable Surface Charge Prepared by Solâ˜Gel Processing of an Organofunctional Silicon Alkoxide. Chemistry of Materials, 2001, 13, 1124-1130.	6.7	40
88	Preparation of colloidal gold multilayers with 3-(mercaptopropyl)-trimethoxysilane as a linker molecule. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 182, 239-245.	4.7	47
89	Detection of Riboflavin Based on Fluorescence Enhancement of Evanescent-Wave Excited Î²-Cyclodextrin Complex in Sol-Gel-Derived Porous Coatings. Applied Spectroscopy, 2000, 54, 15-19.	2.2	10
90	Novel Solâ˜Gel-Derived Material for Separation and Optical Sensing of Metal Ions:Â Propyl-ethylenediamine Triacetate Functionalized Silica. Chemistry of Materials, 1999, 11, 2141-2147.	6.7	65

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91	Microfabricated Silicon Flow-Cell for Optical Monitoring of Biological Fluids.. Analytical Sciences, 1999, 15, 721-724.	1.6	18
92	Spectroscopic and Electrochemical Characterization of Langmuirâ˜Blodgett Films of (2,3,9,10,16,17,23,24-Octakis((2-benzyloxy)ethoxy)phthalocyaninato)copper and Its Metal-free Analogue. Langmuir, 1997, 13, 6568-6576.	3.5	58
93	Novel Amphiphilic Phthalocyanines:Â Formation of Langmuirâ˜Blodgett and Cast Thin Films. Langmuir, 1996, 12, 4784-4796.	3.5	86
94	Supramolecular fibers from a liquid crystalline octa-substituted copper phthalocyanine. Advanced Materials, 1996, 8, 926-928.	21.0	42
95	Periodic Multilayers of Perylene-3,4:9,10-Tetracarboxylic Dianhydride and Chloroindium Phthalocyanine: Limitations to Long-Term Stability. Chemistry of Materials, 1995, 7, 657-662.	6.7	13
96	Epitaxial Growth of the Ionic Polymer Fluoroaluminum Phthalocyanine on the Basal Plane of Single Crystal Tin Disulfide. Chemistry of Materials, 1995, 7, 2127-2135.	6.7	22
97	Dye Sensitization with Octasubstituted Liquid Crystalline Phthalocyanines. Langmuir, 1994, 10, 351-353.	3.5	18
98	Epitaxial phthalocyanine thin films and phthalocyanine/C60 multilayers. Synthetic Metals, 1993, 54, 351-362.	3.9	36
99	Dye aggregates and organic superlattices formed by organic-inorganic molecular beam epitaxy. Thin Solid Films, 1992, 216, 90-95.	1.8	22
100	Organic/inorganic-molecular beam epitaxy: formation of an ordered phthalocyanine/tin(IV) sulfide heterojunction. Chemistry of Materials, 1991, 3, 829-838.	6.7	83
101	Surface isoelectric point of evaporated silver films: Determination by contact angle titration. Journal of Colloid and Interface Science, 1991, 145, 283-286.	9.4	46
102	Composition and structure of spontaneously adsorbed monolayers of n-perfluorocarboxylic acids on silver. Chemical Physics Letters, 1990, 167, 198-204.	2.6	39
103	Optical sensor for calcium: performance, structure, and reactivity of calcichrome immobilized at an anionic polymer film. Analytical Chemistry, 1990, 62, 1964-1971.	6.5	32
104	Calcichrome: a re-examination of its structure and chemical properties by solid- and liquid-state NMR, infrared spectroscopy, and selective chemical degradation. Analytica Chimica Acta, 1989, 217, 31-42.	5.4	7
105	Dirhodium complexes with axially and equatorially nonequivalent rhodium atoms. Characterization of Rh2(tcl)4(tclH) and Rh2(tcl)4(CO) (tcl = .omega.-thiocaprolactamate). Inorganic Chemistry, 1987, 26, 822-829.	4.0	18
106	Reduction of dirhodium(II) complexes of the type [Rh2(O2CCH3)3(L)]+. An ESR investigation. Inorganic Chemistry, 1986, 25, 1514-1516.	4.0	44
107	Synthesis and characterization of dirhodium complexes with four N,N'-diphenylbenzamidine bridging ligands. Electrochemical generation and ESR properties of [Rh2(N2R2CR)4]n where R = Phenyl and n = 1 and -1. Journal of the American Chemical Society, 1985, 107, 7195-7197.	13.7	31
108	Optical biosensor based on colloidal gold-modified long-period fiber grating. , 0, , .		0

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109	Detection of amphetamineâ€type stimulants using sample derivatization and SALDIâ€TOFâ€MS. Journal of the Chinese Chemical Society, 0, , .	1.4	1