

Alan X Wang

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

1,540
citations

279487

23
h-index

315357

38
g-index

65
all docs

65
docs citations

65
times ranked

1781
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of Recent Progress of Plasmonic Materials and Nano-Structures for Surface-Enhanced Raman Scattering. <i>Materials</i> , 2015, 8, 3024-3052.	1.3	193
2	Microfluidic diatomite analytical devices for illicit drug sensing with ppb-level sensitivity. <i>Sensors and Actuators B: Chemical</i> , 2018, 259, 587-595.	4.0	91
3	Trace Detection of Tetrahydrocannabinol in Body Fluid via Surface-Enhanced Raman Scattering and Principal Component Analysis. <i>ACS Sensors</i> , 2019, 4, 1109-1117.	4.0	73
4	Quantitative TLC-SERS detection of histamine in seafood with support vector machine analysis. <i>Food Control</i> , 2019, 103, 111-118.	2.8	65
5	Enhancing surface plasmon resonances of metallic nanoparticles by diatom biosilica. <i>Optics Express</i> , 2013, 21, 15308.	1.7	60
6	Detecting explosive molecules from nanoliter solution: A new paradigm of SERS sensing on hydrophilic photonic crystal biosilica. <i>Biosensors and Bioelectronics</i> , 2017, 88, 63-70.	5.3	57
7	Ultracompact Silicon-Conductive Oxide Nanocavity Modulator with 0.02 Lambda-Cubic Active Volume. <i>Nano Letters</i> , 2018, 18, 1075-1081.	4.5	56
8	Guided-mode-resonance-coupled plasmonic-active SiO ₂ nanotubes for surface enhanced Raman spectroscopy. <i>Applied Physics Letters</i> , 2012, 100, 191114.	1.5	53
9	Ultra-sensitive immunoassay biosensors using hybrid plasmonic-biosilica nanostructured materials. <i>Journal of Biophotonics</i> , 2015, 8, 659-667.	1.1	51
10	Ultrashort Near-Infrared Fiber-Optic Sensors for Carbon Dioxide Detection. <i>IEEE Sensors Journal</i> , 2015, 15, 5327-5332.	2.4	49
11	Ultra-sensitive lab-on-a-chip detection of Sudan I in food using plasmonics-enhanced diatomaceous thin film. <i>Food Control</i> , 2017, 79, 258-265.	2.8	47
12	Optofluidic sensing from inkjet-printed droplets: the enormous enhancement by evaporation-induced spontaneous flow on photonic crystal biosilica. <i>Nanoscale</i> , 2016, 8, 17285-17294.	2.8	44
13	Biological Photonic Crystal-Enhanced Plasmonic Mesocapsules: Approaching Single-Molecule Optofluidic-SERS Sensing. <i>Advanced Optical Materials</i> , 2019, 7, 1900415.	3.6	44
14	Chemical and Biological Sensing Using Diatom Photonic Crystal Biosilica With In-Situ Growth Plasmonic Nanoparticles. <i>IEEE Transactions on Nanobioscience</i> , 2016, 15, 828-834.	2.2	42
15	Plasmonics-enhanced metal-organic framework nanoporous films for highly sensitive near-infrared absorption. <i>Journal of Materials Chemistry C</i> , 2015, 3, 2763-2767.	2.7	41
16	Surface-Enhanced Raman Spectroscopy Sensors From Nanobiosilica With Self-Assembled Plasmonic Nanoparticles. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 127-132.	1.9	38
17	Simultaneous colorimetric and surface-enhanced Raman scattering detection of melamine from milk. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 231, 118130.	2.0	33
18	Photonic crystal-enhanced fluorescence imaging immunoassay for cardiovascular disease biomarker screening with machine learning analysis. <i>Sensors and Actuators B: Chemical</i> , 2019, 290, 118-124.	4.0	31

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19	High-Speed Plasmonic-Silicon Modulator Driven by Epsilon-Near-zero Conductive Oxide. <i>Journal of Lightwave Technology</i> , 2020, 38, 3338-3345.	2.7	30
20	Plasmonic cellulose textile fiber from waste paper for BPA sensing by SERS. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 227, 117664.	2.0	28
21	Electrokinetic Manipulation Integrated Plasmonic-Photonic Hybrid Raman Nanosensors with Dually Enhanced Sensitivity. <i>ACS Sensors</i> , 2017, 2, 346-353.	4.0	26
22	Diatomite Photonic Crystals for Facile On-Chip Chromatography and Sensing of Harmful Ingredients from Food. <i>Materials</i> , 2018, 11, 539.	1.3	25
23	Multi-functional regenerated cellulose fibers decorated with plasmonic Au nanoparticles for colorimetry and SERS assays. <i>Cellulose</i> , 2018, 25, 6041-6053.	2.4	24
24	On-chip near-infrared spectroscopy of CO ₂ using high resolution plasmonic filter array. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	23
25	VCSEL Array-Based Gigabit Free-Space Optical Femtocell Communication. <i>Journal of Lightwave Technology</i> , 2020, 38, 1659-1667.	2.7	23
26	High-efficiency and high-speed germanium photodetector enabled by multiresonant photonic crystal. <i>Nanophotonics</i> , 2021, 10, 1081-1087.	2.9	23
27	Plasmonic nanoparticles-decorated diatomite biosilica: extending the horizon of on-chip chromatography and label-free biosensing. <i>Journal of Biophotonics</i> , 2017, 10, 1473-1484.	1.1	22
28	Tetrahydrocannabinol Sensing in Complex Biofluid with Portable Raman Spectrometer Using Diatomaceous SERS Substrates. <i>Biosensors</i> , 2019, 9, 125.	2.3	22
29	Photonic crystal enhanced fluorescence immunoassay on diatom biosilica. <i>Journal of Biophotonics</i> , 2018, 11, e201800009.	1.1	21
30	Photonic Crystal Enhanced SERS Detection of Analytes Separated by Ultrathin Layer Chromatography Using a Diatom Frustule Monolayer. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000191.	1.9	18
31	Guided-Mode Resonance Grating with Self-Assembled Silver Nanoparticles for Surface-Enhanced Raman Scattering Spectroscopy. <i>Photonics</i> , 2014, 1, 380-389.	0.9	17
32	Femto-Joule All-Optical Switching Using Epsilon-Near-Zero High-Mobility Conductive Oxide. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-9.	1.9	16
33	Electrically Tunable High-Quality Factor Silicon Microring Resonator Gated by High Mobility Conductive Oxide. <i>ACS Photonics</i> , 2021, 8, 1933-1936.	3.2	16
34	Multiscale Photonic Crystal Enhanced Core-Shell Plasmonic Nanomaterial for Rapid Vapor-Phase Detection of Explosives. <i>ACS Applied Nano Materials</i> , 2020, 3, 1656-1665.	2.4	13
35	Sub-Part-Per-Billion Level Sensing of Fentanyl Residues from Wastewater Using Portable Surface-Enhanced Raman Scattering Sensing. <i>Biosensors</i> , 2021, 11, 370.	2.3	13
36	Design and Characterization of High Efficiency Nanoantenna Couplers With Plasmonic Integrated Circuit. <i>Journal of Lightwave Technology</i> , 2017, 35, 3182-3188.	2.7	11

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37	Highly-porous diatom biosilica stationary phase for thin-layer chromatography. Journal of Chromatography A, 2019, 1591, 162-170.	1.8	11
38	MOS Capacitor-Driven Silicon Modulators: A Mini Review and Comparative Analysis of Modulation Efficiency and Optical Loss. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-11.	1.9	11
39	Nanostructured copper sulfide thin film <i>via</i> a spatial successive ionic layer adsorption and reaction process showing significant surface-enhanced infrared absorption of CO ₂ . Journal of Materials Chemistry C, 2020, 8, 3069-3078.	2.7	9
40	Quaternion-based parallel feature extraction: Extending the horizon of quantitative analysis using TLC-SERS sensing. Sensors and Actuators B: Chemical, 2019, 299, 126902.	4.0	8
41	Multiplex sensing of complex mixtures by machine vision analysis of TLC-SERS images. Sensors and Actuators B: Chemical, 2022, 357, 131355.	4.0	8
42	Self-powered microfluidic pump using evaporation from diatom biosilica thin films. Microfluidics and Nanofluidics, 2020, 24, 1.	1.0	7
43	Fabrication and Application of SERS-Active Cellulose Fibers Regenerated from Waste Resource. Polymers, 2021, 13, 2142.	2.0	7
44	Bioenabled SERS substrates for food safety and drinking water monitoring. Proceedings of SPIE, 2015, 9488, .	0.8	6
45	Direct and Efficient Optical Coupling Into Plasmonic Integrated Circuits From Optical Fibers. IEEE Photonics Technology Letters, 2016, 28, 1165-1168.	1.3	6
46	Plasmonic color filter array based visible light spectroscopy. Scientific Reports, 2021, 11, 23687.	1.6	6
47	Hybrid silicon-conductive oxide-plasmonic electro-absorption modulator with 2-V swing voltage. Journal of Nanophotonics, 2019, 13, 1.	0.4	5
48	Ultra-Sensitive, Rapid and On-Site Sensing Harmful Ingredients Used in Aquaculture with Magnetic Fluid SERS. Biosensors, 2022, 12, 169.	2.3	5
49	Dual-Mode Silicon Photonic Crystal Nanocavity Modulator with Indium Oxide Gate. , 2018, , .		2
50	Reduced surface roughness with improved imprinting technique for polymer optical components. , 2012, , .		1
51	Ultra-efficient nano-photonic devices using hybrid material systems for optical communication and sensing. , 2012, , .		1
52	Ultra-compact plasmonic waveguides with high efficiency dipole nanoantennas. , 2016, , .		1
53	Facile detection of biogenic amines in plasma using photonic crystal biosilica combining surface-enhanced Raman spectroscopy and thin layer chromatography. , 2016, , .		1
54	Plasmonic integrated circuits with high efficiency nano-antenna couplers. , 2016, , .		1

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55	Silicon Microring Modulator with Transparent Conductive Oxide Gate. , 2019, , .		1
56	High-Speed Plasmonic-Conductive Oxide-Silicon Modulator by Epsilon-Near-Zero Electro-Absorption. , 2019, , .		1
57	Silicon Microring Resonator Driven by High-Mobility Conductive Oxide Capacitor. , 2020, , .		1
58	Hybrid femtocellâ€“attocell optical links for indoor free-space optical communication. Optical Engineering, 2019, 58, 1.	0.5	1
59	Manufacturing of board level waveguide bus using hard mold. , 2012, , .		0
60	A surface-normal plasmonic modulator with electro-optic polymer in metallic slits. , 2016, , .		0
61	Energy-Efficient Silicon Photonic Crystal Nanocavity Modulator Driven by Indium Oxide Gate. , 2018, , .		0
62	High-Speed Atto-Joule per Bit Photonic Crystal Nanocavity Modulator. , 2019, , .		0
63	Silicon-Plasmonic Electro-Absorption Modulator Gated by High Mobility Indium Oxide. , 2019, , .		0
64	Thermal-Free Tunable Silicon Microring Resonator Driven by High-Mobility Conducting Oxide. , 2021, , .		0