Hyuck Choo

List of Publications by Year
in descending order

42 papers	1,254 citations	567281 15 h-index	377865 34 g-index
43 all docs	43 docs citations	43 times ranked	2163 citing authors

#	Article	IF	Citations
1	Nanofocusing in a metalâ€“insulatorâ€“metal gap plasmon waveguide with a three-dimensional linear taper. Nature Photonics, 2012, 6, 838-844.	31.4	308
2	All-solid-state spatial light modulator with independent phase and amplitude control for three-dimensional LiDAR applications. Nature Nanotechnology, 2021, 16, 69-76.	31.5	232
3	Subdermal Flexible Solar Cell Arrays for Powering Medical Electronic Implants. Advanced Healthcare Materials, 2016, 5, 1572-1580.	7.6	112
4	Multifunctional biophotonic nanostructures inspired by the longtail glasswing butterfly for medical devices. Nature Nanotechnology, 2018, 13, 512-519.	31.5	87
5	A microscale optical implant for continuous in vivo monitoring of intraocular pressure. Microsystems and Nanoengineering, 2017, 3, 17057.	7.0	61
6	Glucose Sensing Using Surface-Enhanced Raman-Mode Constraining. Analytical Chemistry, 2018, 90, 14269-14278.	6.5	52
7	Surface-Enhanced Raman Spectroscopy-Based Label-Free Insulin Detection at Physiological Concentrations for Analysis of Islet Performance. ACS Sensors, 2018, 3, 65-71.	7.8	46
8	Aluminum Metasurface with Hybrid Multipolar Plasmons for 1000-Fold Broadband Visible Fluorescence Enhancement and Multiplexed Biosensing. ACS Nano, 2019, 13, 13775-13783.	14.6	39
9	Engineering of metal-clad optical nanocavity to optimize coupling with integrated waveguides. Optics Express, 2013, 21, 25796.	3.4	32
10	Harnessing Chemical Raman Enhancement for Understanding Organic Adsorbate Binding on Metal Surfaces. Journal of Physical Chemistry Letters, 2012, 3, 1357-1362.	4.6	26
11	Biocompatible Multifunctional Blackâ€Silicon for Implantable Intraocular Sensor. Advanced Healthcare Materials, 2017, 6, 1601356.	7.6	25
12	Bioinspired Disordered Flexible Metasurfaces for Human Tear Analysis Using Broadband Surface-Enhanced Raman Scattering. ACS Omega, 2020, 5, 12915-12922.	3.5	24
13	Drift-dominant exciton funneling and trion conversion in 2D semiconductors on the nanogap. Science Advances, 2022, 8, eabm5236.	10.3	21
14	Flexibleâ€Device Injector with a Microflap Array for Subcutaneously Implanting Flexible Medical Electronics. Advanced Healthcare Materials, 2018, 7, e1800419.	7.6	17
15	Simple, Large-Scale Fabrication of Uniform Raman-Enhancing Substrate with Enhancement Saturation. ACS Applied Materials & Interfaces, 2017, 9, 19092-19101.	8.0	16
16	Enhanced broadband fluorescence detection of nucleic acids using multipolar gap-plasmons on biomimetic Au metasurfaces. Nanoscale, 2019, 11, 13750-13757.	5.6	16
17	Overcoming evanescent field decay using 3D-tapered nanocavities for on-chip targeted molecular analysis. Nature Communications, 2020, 11, 2930.	12.8	16
18	Highly Efficient and Tailorable On-Chip Metalâ€“Insulatorâ€“Metal Plasmonic Nanofocusing Cavity. ACS Photonics, 2014, 1, 944-953.	6.6	15

#	Article	IF	Citations
19	Subwavelength pixelated CMOS color sensors based on anti-Hermitian metasurface. Nature Communications, 2020, 11, 3916.	12.8	15
20	Two-dimensional beam steering with tunable metasurface in infrared regime. Nanophotonics, 2022, 11, 2719-2726.	6.0	14
21	Fabrication of pyramidal probes with various periodic patterns and a single nanopore. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, .	1.2	12
22	Real-Time In Vivo Intraocular Pressure Monitoring Using an Optomechanical Implant and an Artificial Neural Network. IEEE Sensors Journal, 2017, 17, 7394-7404.	4.7	9
23	High-performance flexible metal-on-silicon thermocouple. Scientific Reports, 2018, 8, 13725.	3.3	8
24	Single-Chip Beam Scanner with Integrated Light Source for Real-Time Light Detection and Ranging. , 2020, , .		7
25	Novel positioning sensor with real-time feedback for improved postoperative positioning: pilot study in control subjects. Clinical Ophthalmology, 2017, Volume 11, 939-944.	1.8	5
26	Fabryâ€“PÃ©rot Optical Sensor and Portable Detector for Monitoring High-Resolution Ocular Hemodynamics. IEEE Photonics Technology Letters, 2019, 31, 423-426.	2.5	5
27	Single-Chip Beam Scanner LiDAR Module for 20-m Imaging. , 2021, , .		5
28	Validation of sensor for postoperative positioning with intraocular gas. Clinical Ophthalmology, 2016, 10, 955.	1.8	4
29	Scanning confocal vibrometer microscope for vibration analysis of energy-harvesting MEMS in wearables. TM Technisches Messen, 2017, 84, 131-137.	0.7	4
30	High sensitivity bolometers based on metal nanoantenna dimers with a nanogap filled with vanadium dioxide. Scientific Reports, 2021, 11, 15863.	3.3	3
31	Bulk-Si Platform: Born for DRAM, Upgraded With On-Chip Lasers, and Transplanted to LiDAR. Journal of Lightwave Technology, 2022, 40, 3137-3148.	4.6	3
32	Implementation of a High-<formula formulatype="inline"><tex Notation="TeX">Q</tex></formula>, Small Mode Volume Cavity in Microfibers Using Lattice-Constant-Varying Nanohole Arrays. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 85-88.	2.9	2
33	Powering portable electronics using vocal fold vibrations. , 2017, , .		2
34	Hydro-ionic microthruster for locomotion in low-Reynold'S number ionic fluids. , 2017, , .		2
35	Quantitative analysis of a III-V tapered horn-shaped metal-clad nano-cavity as an on-chip light source. AIP Advances, 2017, 7, .	1.3	2
36	Effect of optical aberrations on intraocular pressure measurements using a microscale optical implant in ex vivo rabbit eyes. Journal of Biomedical Optics, 2018, 23, 1.	2.6	2

#	Article	IF	Citations
37	Efficient power generation from vocal folds vibrations for medical electronic implants. , 2016, , .		1
38	Electrically Reconfigurable Active Metasurface for 3D Distance Ranging. , 2020, , .		1
39	Angle Independent Fano Resonances in Bioinspired Nanostructured Fabry-Perot Sensors. , 2020, , .		1
40	Landau-damping-induced limits to lightâ€“matter interactions in sub-10-nm planar plasmonic nanocavities. Optics Express, 2021, 29, 39801-39810.	3.4	1
41	A Highly Efficient On-chip 3D Plasmonic Nanofocusing Structure. Materials Research Society Symposia Proceedings, 2013, 1566, 1.	0.1	0
42	Reconfigurable Si-based Active Metasurface with Ultra Low Loss and Crosstalk for LiDAR. , 2021, , .		0