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	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
2	Two-dimensional beam steering with tunable metasurface in infrared regime. Nanophotonics, 2022, 11, 2719-2726.	6.0	14
3	Drift-dominant exciton funneling and trion conversion in 2D semiconductors on the nanogap. Science Advances, 2022, 8, eabm5236.	10.3	21
4	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
5	High sensitivity bolometers based on metal nanoantenna dimers with a nanogap filled with vanadium dioxide. Scientific Reports, 2021, 11, 15863.	3.3	3
6	Landau-damping-induced limits to lightâ€“matter interactions in sub-10-nm planar plasmonic nanocavities. Optics Express, 2021, 29, 39801-39810.	3.4	1
7	Reconfigurable Si-based Active Metasurface with Ultra Low Loss and Crosstalk for LiDAR. , 2021, , .		0
8	Single-Chip Beam Scanner LiDAR Module for 20-m Imaging. , 2021, , .		5
9	Subwavelength pixelated CMOS color sensors based on anti-Hermitian metasurface. Nature Communications, 2020, 11, 3916.	12.8	15
10	Overcoming evanescent field decay using 3D-tapered nanocavities for on-chip targeted molecular analysis. Nature Communications, 2020, 11, 2930.	12.8	16
11	Bioinspired Disordered Flexible Metasurfaces for Human Tear Analysis Using Broadband Surface-Enhanced Raman Scattering. ACS Omega, 2020, 5, 12915-12922.	3.5	24
12	Electrically Reconfigurable Active Metasurface for 3D Distance Ranging. , 2020, , .		1
13	Single-Chip Beam Scanner with Integrated Light Source for Real-Time Light Detection and Ranging. , 2020, , .		7
14	Angle Independent Fano Resonances in Bioinspired Nanostructured Fabry-Perot Sensors. , 2020, , .		1
15	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
16	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
17	Enhanced broadband fluorescence detection of nucleic acids using multipolar gap-plasmons on biomimetic Au metasurfaces. Nanoscale, 2019, 11, 13750-13757.	5.6	16
18	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

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19	Multifunctional biophotonic nanostructures inspired by the longtail glasswing butterfly for medical devices. Nature Nanotechnology, 2018, 13, 512-519.	31.5	87
20	High-performance flexible metal-on-silicon thermocouple. Scientific Reports, 2018, 8, 13725.	3.3	8
21	Glucose Sensing Using Surface-Enhanced Raman-Mode Constraining. Analytical Chemistry, 2018, 90, 14269-14278.	6.5	52
22	Flexibleâ€Device Injector with a Microflap Array for Subcutaneously Implanting Flexible Medical Electronics. Advanced Healthcare Materials, 2018, 7, e1800419.	7.6	17
23	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
24	Biocompatible Multifunctional Blackâ€Silicon for Implantable Intraocular Sensor. Advanced Healthcare Materials, 2017, 6, 1601356.	7.6	25
25	Powering portable electronics using vocal fold vibrations. , 2017, , .		2
26	Hydro-ionic microthruster for locomotion in low-Reynold'S number ionic fluids. , 2017, , .		2
27	Simple, Large-Scale Fabrication of Uniform Raman-Enhancing Substrate with Enhancement Saturation. ACS Applied Materials & Interfaces, 2017, 9, 19092-19101.	8.0	16
28	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
29	A microscale optical implant for continuous in vivo monitoring of intraocular pressure. Microsystems and Nanoengineering, 2017, 3, 17057.	7.0	61
30	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
31	Scanning confocal vibrometer microscope for vibration analysis of energy-harvesting MEMS in wearables. TM Technisches Messen, 2017, 84, 131-137.	0.7	4
32	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
33	Validation of sensor for postoperative positioning with intraocular gas. Clinical Ophthalmology, 2016, 10, 955.	1.8	4
34	Subdermal Flexible Solar Cell Arrays for Powering Medical Electronic Implants. Advanced Healthcare Materials, 2016, 5, 1572-1580.	7.6	112
35	Efficient power generation from vocal folds vibrations for medical electronic implants. , 2016, , .		1
36	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

#	Article	IF	Citations
37	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
38	Highly Efficient and Tailorable On-Chip Metalâ€“Insulatorâ€“Metal Plasmonic Nanofocusing Cavity. ACS Photonics, 2014, 1, 944-953.	6.6	15
39	Engineering of metal-clad optical nanocavity to optimize coupling with integrated waveguides. Optics Express, 2013, 21, 25796.	3.4	32
40	A Highly Efficient On-chip 3D Plasmonic Nanofocusing Structure. Materials Research Society Symposia Proceedings, 2013, 1566, 1.	0.1	0
41	Nanofocusing in a metalâ€“insulatorâ€“metal gap plasmon waveguide with a three-dimensional linear taper. Nature Photonics, 2012, 6, 838-844.	31.4	308
42	Harnessing Chemical Raman Enhancement for Understanding Organic Adsorbate Binding on Metal Surfaces. Journal of Physical Chemistry Letters, 2012, 3, 1357-1362.	4.6	26