

# Donghyun Kim

## List of Publications by Citations

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120  
papers

2,286  
citations

30  
h-index

41  
g-index

170  
ext. papers

2,953  
ext. citations

4.9  
avg, IF

5.12  
L-index

#	Paper	IF	Citations
120	Experimental study of sensitivity enhancement in surface plasmon resonance biosensors by use of periodic metallic nanowires. <i>Optics Letters</i> , <b>2007</b> , 32, 1902-4	3	107
119	Design study of highly sensitive nanowire-enhanced surface plasmon resonance biosensors using rigorous coupled wave analysis. <i>Optics Express</i> , <b>2005</b> , 13, 3737-42	3.3	103
118	Nanowire-based enhancement of localized surface plasmon resonance for highly sensitive detection: a theoretical study. <i>Optics Express</i> , <b>2006</b> , 14, 12419-31	3.3	84
117	Grating-coupled transmission-type surface plasmon resonance sensors based on dielectric and metallic gratings. <i>Applied Optics</i> , <b>2007</b> , 46, 5703-8	1.7	76
116	Surface plasmon resonance phase imaging measurements of patterned monolayers and DNA adsorption onto microarrays. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 2801-6	7.8	63
115	Detection of Single Nanoparticles Using the Dissipative Interaction in a High-Q Microcavity. <i>Physical Review Applied</i> , <b>2016</b> , 5,	4.3	61
114	Systematic study on the sensitivity enhancement in graphene plasmonic sensors based on layer-by-layer self-assembled graphene oxide multilayers and their reduced analogues. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 144-51	9.5	51
113	Microfluidic assay-based optical measurement techniques for cell analysis: A review of recent progress. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 77, 227-36	11.8	50
112	Self-aligned colocalization of 3D plasmonic nanogap arrays for ultra-sensitive surface plasmon resonance detection. <i>Biosensors and Bioelectronics</i> , <b>2014</b> , 51, 401-7	11.8	46
111	Effect of resonant localized plasmon coupling on the sensitivity enhancement of nanowire-based surface plasmon resonance biosensors. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2006</b> , 23, 2307-14	1.8	46
110	Surface-enhanced plasmon resonance detection of nanoparticle-conjugated DNA hybridization. <i>Applied Optics</i> , <b>2010</b> , 49, 484-91	0.2	45
109	Carbon nanotube-based dual-mode biosensor for electrical and surface plasmon resonance measurements. <i>Nano Letters</i> , <b>2010</b> , 10, 2755-60	11.5	44
108	Antibody-based surface plasmon resonance detection of intact viral pathogen. <i>Biotechnology and Bioengineering</i> , <b>2006</b> , 94, 815-9	4.9	43
107	Localized surface plasmon resonance detection of layered biointeractions on metallic subwavelength nanogratings. <i>Nanotechnology</i> , <b>2009</b> , 20, 315501	3.4	41
106	Target-Localized Nanograting-Based Surface Plasmon Resonance Detection toward Label-free Molecular Biosensing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2010</b> , 16, 1004-1014	3.8	41
105	Grating-based surface plasmon resonance detection of core-shell nanoparticle mediated DNA hybridization. <i>Biosensors and Bioelectronics</i> , <b>2012</b> , 32, 141-7	11.8	40
104	Fluorescence optical detection in situ for real-time monitoring of cytochrome P450 enzymatic activity of liver cells in multiple microfluidic devices. <i>Biotechnology and Bioengineering</i> , <b>2009</b> , 104, 516-25	4.9	40

103	Effect of target localization on the sensitivity of a localized surface plasmon resonance biosensor based on subwavelength metallic nanostructures. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2009</b> , 26, 1027-34	1.8	40
102	Effect of the azimuthal orientation on the performance of grating-coupled surface-plasmon resonance biosensors. <i>Applied Optics</i> , <b>2005</b> , 44, 3218-23	1.7	39
101	Configuration-controlled Au nanocluster arrays on inverse micelle nano-patterns: versatile platforms for SERS and SPR sensors. <i>Nanoscale</i> , <b>2013</b> , 5, 12261-71	7.7	38
100	Revolutionizing the FRET-based light emission in core-shell nanostructures via comprehensive activity of surface plasmons. <i>Scientific Reports</i> , <b>2014</b> , 4, 4735	4.9	38
99	Sensitivity Enhancement of Surface Plasmon Resonance Imaging Using Periodic Metallic Nanowires. <i>Journal of Lightwave Technology</i> , <b>2008</b> , 26, 1472-1478	4	38
98	Enhanced detection of virus particles by nanoisland-based localized surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 41, 249-55	11.8	36
97	Colocalization of gold nanoparticle-conjugated DNA hybridization for enhanced surface plasmon detection using nanograting antennas. <i>Optics Letters</i> , <b>2011</b> , 36, 1353-5	3	36
96	Extraordinary Transmission-based Plasmonic Nanoarrays for Axially Super-Resolved Cell Imaging. <i>Advanced Optical Materials</i> , <b>2014</b> , 2, 48-55	8.1	34
95	Nanoisland-based random activation of fluorescence for visualizing endocytotic internalization of adenovirus. <i>Small</i> , <b>2010</b> , 6, 1293-9	11	33
94	Field-matter integral overlap to estimate the sensitivity of surface plasmon resonance biosensors. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2012</b> , 29, 1367-76	1.8	32
93	Target dependence of the sensitivity in periodic nanowire-based localized surface plasmon resonance biosensors. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2008</b> , 25, 725-35	1.8	32
92	Nanoscale localization sampling based on nanoantenna arrays for super-resolution imaging of fluorescent monomers on sliding microtubules. <i>Small</i> , <b>2012</b> , 8, 892-900, 786	11	31
91	Sensitivity analysis of a nanowire-based surface plasmon resonance biosensor in the presence of surface roughness. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2007</b> , 24, 522-9	1.8	30
90	Investigation of the profile effect on the sensitivity enhancement of nanowire-mediated localized surface plasmon resonance biosensors. <i>Sensors and Actuators B: Chemical</i> , <b>2006</b> , 117, 401-407	8.5	29
89	Surface-enhanced localized surface plasmon resonance biosensing of avian influenza DNA hybridization using subwavelength metallic nanoarrays. <i>Nanotechnology</i> , <b>2010</b> , 21, 355503	3.4	28
88	Superlocalized Three-Dimensional Live Imaging of Mitochondrial Dynamics in Neurons Using Plasmonic Nanohole Arrays. <i>ACS Nano</i> , <b>2019</b> , 13, 3063-3074	16.7	27
87	Nanograting-based plasmon enhancement for total internal reflection fluorescence microscopy of live cells. <i>Nanotechnology</i> , <b>2009</b> , 20, 015202	3.4	26
86	Plasmonics-based spatially activated light microscopy for super-resolution imaging of molecular fluorescence. <i>Optics Letters</i> , <b>2010</b> , 35, 3501-3	3	24

85	Real-time fluorescence detection of multiple microscale cell culture analog devices in situ. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , <b>2007</b> , 71, 857-65	4.6	23
84	Three-Dimensional Superlocalization Imaging of Gliding Mycoplasma mobile by Extraordinary Light Transmission through Arrayed Nanoholes. <i>ACS Nano</i> , <b>2015</b> , 9, 10896-908	16.7	22
83	Nanogap-based dielectric-specific colocalization for highly sensitive surface plasmon resonance detection of biotin-streptavidin interactions. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 233701	3.4	22
82	Surface plasmon microscopy by spatial light switching for label-free imaging with enhanced resolution. <i>Optics Letters</i> , <b>2018</b> , 43, 959-962	3	21
81	Subwavelength grating-based nanoplasmonic modulation for surface plasmon resonance imaging with enhanced resolution. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2010</b> , 27, 1252	1.7	21
80	Thin-film-based field penetration engineering for surface plasmon resonance biosensing. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2007</b> , 24, 2543-9	1.8	21
79	Polarization characteristics of a wire-grid polarizer in a rotating platform. <i>Applied Optics</i> , <b>2005</b> , 44, 1366-71	1.7	21
78	Portable in situ fluorescence cytometry of microscale cell-based assays. <i>Optics Letters</i> , <b>2005</b> , 30, 1689-91	1.7	21
77	Fitting-based determination of an effective medium of a metallic periodic structure and application to photonic crystals. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2006</b> , 23, 199-207	1.8	20
76	Machine learning-based design of meta-plasmonic biosensors with negative index metamaterials. <i>Biosensors and Bioelectronics</i> , <b>2020</b> , 164, 112335	11.8	19
75	Capacitance-based real time monitoring of receptor-mediated endocytosis. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 25, 1325-32	11.8	18
74	Performance uniformity analysis of a wire-grid polarizer in imaging polarimetry. <i>Applied Optics</i> , <b>2005</b> , 44, 5398-402	1.7	18
73	Profile effect on the feasibility of extinction-based localized surface plasmon resonance biosensors with metallic nanowires. <i>Applied Optics</i> , <b>2006</b> , 45, 3382-9	1.7	18
72	Graphene Oxide Shells on Plasmonic Nanostructures Lead to High-Performance Photovoltaics: A Model Study Based on Dye-Sensitized Solar Cells. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 117-123	20.1	16
71	Deep Learning Approach for Enhanced Detection of Surface Plasmon Scattering. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 9538-9545	7.8	16
70	Investigation of portable in situ fluorescence optical detection for microfluidic 3D cell culture assays. <i>Optics Letters</i> , <b>2010</b> , 35, 1374-6	3	16
69	Plasmon-enhanced total-internal-reflection fluorescence by momentum-mismatched surface nanostructures. <i>Optics Letters</i> , <b>2009</b> , 34, 3905-7	3	16
68	Effective medium-based analysis of nanowire-mediated localized surface plasmon resonance. <i>Applied Optics</i> , <b>2007</b> , 46, 872-80	1.7	16

67	Plasmon-Coupled Whispering Gallery Modes on Nanodisk Arrays for Signal Enhancements. <i>Scientific Reports</i> , <b>2017</b> , 7, 11737	4.9	15
66	Surface plasmon-enhanced nanoscopy of intracellular cytoskeletal actin filaments using random nanodot arrays. <i>Optics Express</i> , <b>2014</b> , 22, 27695-706	3.3	15
65	Probabilistic evaluation of surface-enhanced localized surface plasmon resonance biosensing. <i>Optics Express</i> , <b>2014</b> , 22, 28412-26	3.3	14
64	Enhancement of localized surface plasmon resonance detection by incorporating metal-dielectric double-layered subwavelength gratings. <i>Applied Optics</i> , <b>2011</b> , 50, 2846-54	0.2	14
63	A microfluidic device for evaluating the dynamics of the metabolism-dependent antioxidant activity of nutrients. <i>Lab on A Chip</i> , <b>2014</b> , 14, 2948-57	7.2	13
62	Effect of coupled graphene oxide on the sensitivity of surface plasmon resonance detection. <i>Applied Optics</i> , <b>2014</b> , 53, 1419-26	1.7	13
61	Effect of surface roughness on the extinction-based localized surface plasmon resonance biosensors. <i>Applied Optics</i> , <b>2008</b> , 47, 5886-92	0.2	13
60	Imaging multispectral polarimetric sensor: single-pixel design, fabrication, and characterization. <i>Applied Optics</i> , <b>2003</b> , 42, 3756-64	1.7	13
59	Plasmonic signal enhancements using randomly distributed nanoparticles on a stochastic nanostructure substrate. <i>Applied Spectroscopy Reviews</i> , <b>2016</b> , 51, 646-655	4.5	12
58	Segmented coupled-wave analysis of a curved wire-grid polarizer. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2008</b> , 25, 558-65	1.8	12
57	Thin-film-based sensitivity enhancement for total internal reflection fluorescence live-cell imaging. <i>Optics Letters</i> , <b>2007</b> , 32, 3062-4	3	12
56	Design of a grating-based thin-film filter for broadband spectropolarimetry. <i>Applied Optics</i> , <b>2003</b> , 42, 6321-6	1.7	12
55	In vitro hepatic steatosis model based on gut-liver-on-a-chip. <i>Biotechnology Progress</i> , <b>2021</b> , 37, e3121	2.8	12
54	Molecular overlap with optical near-fields based on plasmonic nanolithography for ultrasensitive label-free detection by light-matter colocalization. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 96, 89-98	11.8	11
53	Electromagnetic Near-Field Nanoantennas for Subdiffraction-Limited Surface Plasmon-Enhanced Light Microscopy. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2012</b> , 18, 1684-1691	3.8	11
52	Enhanced image reconstruction of three-dimensional fluorescent assays by subtractive structured-light illumination microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2012</b> , 29, 2165-73	1.8	10
51	Enhancing the Performance of Surface Plasmon Resonance Biosensor via Modulation of Electron Density at the Graphene-Gold Interface. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1800433	4.6	10
50	Super-resolution Photoacoustic Microscopy Using Near-Field Localization by a Plasmonic Metal Nanoaperture: A Simulation Study. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2019</b> , 25, 1-7	3.8	9

49	Label-free quantification of cell-to-substrate separation by surface plasmon resonance microscopy. <i>Optics Communications</i> , <b>2018</b> , 422, 64-68	2	8
48	Blazed wire-grid polarizer for plasmon-enhanced polarization extinction: design and analysis. <i>Optics Express</i> , <b>2017</b> , 25, 8098-8107	3.3	8
47	Colorimetric Visualization Using Polymeric Core-Shell Nanoparticles: Enhanced Sensitivity for Formaldehyde Gas Sensors. <i>Polymers</i> , <b>2020</b> , 12,	4.5	7
46	Curvature effects on flexible surface plasmon resonance biosensing: segmented-wave analysis. <i>Optics Express</i> , <b>2016</b> , 24, 11994-2006	3.3	7
45	Enhanced surface plasmon microscopy based on multi-channel spatial light switching for label-free neuronal imaging. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 146, 111738	11.8	7
44	Enhanced anti-tumor efficacy and safety profile of tumor microenvironment-responsive oncolytic adenovirus nanocomplex by systemic administration. <i>Acta Biomaterialia</i> , <b>2015</b> , 28, 86-98	10.8	7
43	Sub-10 nm near-field localization by plasmonic metal nanoaperture arrays with ultrashort light pulses. <i>Scientific Reports</i> , <b>2015</b> , 5, 17584	4.9	7
42	Polarization-extinction-based detection of DNA hybridization in situ using a nanoparticle wire-grid polarizer. <i>Optics Letters</i> , <b>2012</b> , 37, 3867-9	3	7
41	In Situ Fluorescence Optical Detection Using a Digital Micromirror Device (DMD) for 3D Cell-based Assays. <i>Journal of the Optical Society of Korea</i> , <b>2012</b> , 16, 42-46		7
40	Influence of surface roughness on the polarimetric characteristics of a wire-grid grating polarizer. <i>Applied Optics</i> , <b>2008</b> , 47, 5715-21	0.2	6
39	Reduction of coherent artifacts in dynamic holographic three-dimensional displays by diffraction-specific pseudorandom diffusion. <i>Optics Letters</i> , <b>2004</b> , 29, 611-3	3	6
38	A Protoberberine derivative HWY336 selectively inhibits MKK4 and MKK7 in mammalian cells: the importance of activation loop on selectivity. <i>PLoS ONE</i> , <b>2014</b> , 9, e91037	3.7	6
37	Surface Plasmon Localization-Based Super-resolved Raman Microscopy. <i>Nano Letters</i> , <b>2020</b> , 20, 8951-8958.	5.5	6
36	Metallic 3D Random Nanocomposite Islands For Near-Field Spatial Light Switching. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1701219	8.1	4
35	A simple and efficient strategy for the sensitivity enhancement of DNA hybridization based on the coupling between propagating and localized surface plasmons. <i>Sensors and Actuators B: Chemical</i> , <b>2013</b> , 176, 1074-1080	8.5	4
34	Localization-based full-field microscopy: how to attain super-resolved images. <i>Scientific Reports</i> , <b>2015</b> , 5, 12365	4.9	4
33	Nanostructure-Based Localized Surface Plasmon Resonance Biosensors. <i>Springer Series on Chemical Sensors and Biosensors</i> , <b>2010</b> , 181-207	2	4
32	Microscale heat transfer and thermal extinction of a wire-grid polarizer. <i>Scientific Reports</i> , <b>2018</b> , 8, 14973.	4.9	4

31	3D Organoid Culture From Adult Salivary Gland Tissues as an Modeling of Salivary Gland Morphogenesis. <i>Frontiers in Cell and Developmental Biology</i> , <b>2021</b> , 9, 698292	5.7	4
30	Theoretical approach to surface plasmon scattering microscopy for single nanoparticle detection in near infrared region <b>2015</b> ,		3
29	Disordered Nanocomposite Islands for Nanospeckle Illumination Microscopy in Wide-Field Super-Resolution Imaging. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2100211	8.1	3
28	Plasmon-enhanced fluorescence correlation spectroscopy for super-localized detection of nanoscale subcellular dynamics. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 184, 113219	11.8	3
27	Notch spatial filtering of image artifacts for structured illumination microscopy of cell-based assays. <i>Optics Communications</i> , <b>2013</b> , 308, 142-146	2	2
26	Effect of Nanogap-Based Light-Matter Colocalization on the Surface Plasmon Resonance Detection. <i>Journal of Lightwave Technology</i> , <b>2017</b> , 35, 4721-4727	4	2
25	An experimental correlation study between field-target overlap and sensitivity of surface plasmon resonance biosensors based on sandwiched immunoassays. <i>Optics Communications</i> , <b>2012</b> , 285, 4626-4631	3.2	2
24	Effective optical properties of nanoparticle-mediated surface plasmon resonance sensors. <i>Optics Express</i> , <b>2019</b> , 27, 3091-3100	3.3	2
23	Granulated Silica Segmented Cladding Fiber for Optical Communication <b>2021</b> ,		2
22	Microtechnology-based models: Mimicking liver function and pathophysiology. <i>APL Bioengineering</i> , <b>2021</b> , 5, 041505	6.6	2
21	Electrocatalytic glycerol oxidation enabled by surface plasmon polariton-induced hot carriers in Kretschmann configuration. <i>Nanoscale</i> , <b>2019</b> , 11, 23234-23240	7.7	2
20	Ultra-Sensitive Surface Plasmon Resonance Detection by Colocalized 3D Plasmonic Nanogap Arrays. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1571, 15-29	1.4	1
19	Probabilistic approach for sensing performances of localized surface plasmon resonance biosensors <b>2015</b> ,		1
18	Localized surface plasmon enhanced cellular imaging using random metallic structures <b>2017</b> ,		1
17	Surface-plasmon enhanced microscopy using blocked silver nanodot arrays <b>2015</b> ,		1
16	Confocal fluorescence detection for 3D cultured mammalian cells in a microfluidic cell culture system <b>2010</b> ,		1
15	Confocal fluorescence detection of cell-based assays using a digital micromirror device <b>2010</b> ,		1
14	Discrimination characteristics of a wire-grid polarizer for polarimetric detection of multiple polarized beams <b>2007</b> ,		1

13	Super-resolved Raman microscopy using random structured light illumination: Concept and feasibility. <i>Journal of Chemical Physics</i> , <b>2021</b> , 155, 144202	3.9	1
12	Nanoslot metasurface design and characterization for enhanced organic light-emitting diodes. <i>Scientific Reports</i> , <b>2021</b> , 11, 9232	4.9	1
11	Silica segmented cladding fiber design and its fabrication using a powder-in-tube technique. <i>Journal of Lightwave Technology</i> , <b>2021</b> , 1-1	4	1
10	Numerical evaluation of periodic nanowire-based phase sensitive surface plasmon resonance detection. <i>Current Applied Physics</i> , <b>2009</b> , 9, e239-e242	2.6	0
9	Identifying Key Elements for Establishing Sustainable Conventions and Exhibitions: Use of the Delphi and AHP Approaches. <i>Sustainability</i> , <b>2022</b> , 14, 1678	3.6	0
8	Dispersive effects in imaging polarimetry based on a wire-grid polarizer. <i>Scientific Reports</i> , <b>2020</b> , 10, 9495.9	4.9	0
7	Effectiveness of high curvature segmentation on the curved flexible surface plasmon resonance. <i>Optics Express</i> , <b>2021</b> , 29, 26955-26970	3.3	0
6	Machine learning-based leaky momentum prediction of plasmonic random nanosubstrate. <i>Optics Express</i> , <b>2021</b> , 29, 30625-30636	3.3	0
5	Bend-resistant octo-wing silica segmented cladding fiber with high index rings. <i>Results in Physics</i> , <b>2022</b> , 36, 105423	3.7	0
4	Enhanced Optical Biosensors Based on Nanoplasmonics <b>2013</b> , 252-269		
3	Experimental confirmation of plasmonic field cancellation under specific conditions of trapezoidal nanopatterns. <i>Optics Express</i> , <b>2019</b> , 27, 29168-29177	3.3	
2	Surface Plasmon-Enhanced Super-Localization Microscopy <b>2017</b> , 545-584		
1	Surface Plasmon-Enhanced Super-Localization Microscopy <b>2014</b> , 1-35		