

Sung-Gyu Park

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

3,720
citations

172386

29
h-index

138417

58
g-index

92
all docs

92
docs citations

92
times ranked

5511
citing authors

#	ARTICLE	IF	CITATIONS
1	SERS substrates based on self-organized dimple nanostructures on polyethylene naphthalate films produced via oxygen ion beam sputtering. <i>Applied Surface Science</i> , 2022, 572, 151452.	3.1	13
2	SERS-PCR assays of SARS-CoV-2 target genes using Au nanoparticles-internalized Au nanodimple substrates. <i>Biosensors and Bioelectronics</i> , 2022, 197, 113736.	5.3	32
3	Plasmonic hotspot engineering of Ag-coated polymer substrates with high reproducibility and photothermal stability. <i>Sensors and Actuators B: Chemical</i> , 2022, 354, 131110.	4.0	12
4	In situ electrochemical surface modification of Au electrodes for simultaneous label-free SERS detection of ascorbic acid, dopamine and uric acid. <i>Sensors and Actuators B: Chemical</i> , 2022, 353, 131196.	4.0	30
5	Hydrogel-Assisted 3D Volumetric Hotspot for Sensitive Detection by Surface-Enhanced Raman Spectroscopy. <i>International Journal of Molecular Sciences</i> , 2022, 23, 1004.	1.8	8
6	Surface-enhanced Raman scattering-based immunoassay for severe acute respiratory syndrome coronavirus 2. <i>Biosensors and Bioelectronics</i> , 2022, 202, 114008.	5.3	30
7	Early and direct detection of bacterial signaling molecules through one-pot Au electrodeposition onto paper-based 3D SERS substrates. <i>Sensors and Actuators B: Chemical</i> , 2022, 358, 131504.	4.0	18
8	Three-Dimensional Hot-Volume Plasmonic Gold Nanoreactor Array for Ultrasensitive Immunoassays. <i>ACS Applied Nano Materials</i> , 2022, 5, 4269-4280.	2.4	2
9	Organometallic hotspot engineering for ultrasensitive EC-SERS detection of pathogenic bacteria-derived DNAs. <i>Biosensors and Bioelectronics</i> , 2022, 210, 114325.	5.3	17
10	PCR-coupled Paper-based Surface-enhanced Raman Scattering (SERS) Sensor for Rapid and Sensitive Detection of Respiratory Bacterial DNA. <i>Sensors and Actuators B: Chemical</i> , 2021, 326, 128802.	4.0	43
11	A cyclodextrin-decorated plasmonic gold nanosatellite substrate for selective detection of bipyridylum pesticides. <i>Analyst</i> , The, 2021, 146, 305-314.	1.7	16
12	Small-Volume Plasmonic Microwell Array with 3D Hierarchical Nanomaterials for Plasmon-Enhanced Fluorescence Immunoassay. <i>Advanced NanoBiomed Research</i> , 2021, 1, 2000015.	1.7	5
13	Dual synergistic modulation of photo-induced electron transfer processes between molecules and gold nanopillars for ultrasensitive plasmon-enhanced Raman scattering. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8842-8848.	2.7	2
14	Sensitive Detection of SARS-CoV-2 Using a SERS-Based Aptasensor. <i>ACS Sensors</i> , 2021, 6, 2378-2385.	4.0	109
15	Bioinspired plasmonic nanoflower-decorated microneedle for label-free intradermal sensing. <i>Applied Surface Science</i> , 2021, 551, 149411.	3.1	24
16	Rapid and sensitive multiplex molecular diagnosis of respiratory pathogens using plasmonic isothermal RPA array chip. <i>Biosensors and Bioelectronics</i> , 2021, 182, 113167.	5.3	11
17	Reproducible and Sensitive Plasmonic Sensing Platforms Based on Au-Nanoparticle-Internalized Nanodimpled Substrates. <i>Advanced Functional Materials</i> , 2021, 31, 2105703.	7.8	31
18	Plasmonic contact lens materials for glucose sensing in human tears. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130297.	4.0	28

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19	Nanoconfined 3D redox capacitor-based electrochemical sensor for ultrasensitive monitoring of metabolites in bacterial communication. <i>Sensors and Actuators B: Chemical</i> , 2021, 345, 130427.	4.0	9
20	SERS-based serodiagnosis of acute febrile diseases using plasmonic nanopopcorn microarray platforms. <i>Biosensors and Bioelectronics</i> , 2021, 192, 113525.	5.3	14
21	A Wearable Surface-Enhanced Raman Scattering Sensor for Label-Free Molecular Detection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 3024-3032.	4.0	70
22	Electrochemical Synthesis of 3D Plasmonic-Molecule Nanocomposite Materials for In Situ Label-Free Molecular Detections. <i>Advanced Materials Interfaces</i> , 2021, 8, 2101201.	1.9	2
23	In Situ Electrodeposition of Gold Nanostructures in 3D Ultra-Thin Hydrogel Skins for Direct Molecular Detection in Complex Mixtures with High Sensitivity. <i>Laser and Photonics Reviews</i> , 2021, 15, 2100316.	4.4	9
24	Electrochemical Synthesis of 3D Plasmonic-Molecule Nanocomposite Materials for In Situ Label-Free Molecular Detections (<i>Adv. Mater. Interfaces</i> 21/2021). <i>Advanced Materials Interfaces</i> , 2021, 8, .	1.9	0
25	Reproducible and Sensitive Plasmonic Sensing Platforms Based on Au-Nanoparticle-Internalized Nanodimpled Substrates (<i>Adv. Funct. Mater.</i> 49/2021). <i>Advanced Functional Materials</i> , 2021, 31, 2170366.	7.8	2
26	Tethered molecular redox capacitors for nanoconfinement-assisted electrochemical signal amplification. <i>Nanoscale</i> , 2020, 12, 3668-3676.	2.8	10
27	Plasmonic Microgels for Raman-Based Molecular Detection Created by Simultaneous Photoreduction and Photocross-linking. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 48188-48197.	4.0	14
28	SERS imaging-based aptasensor for ultrasensitive and reproducible detection of influenza virus A. <i>Biosensors and Bioelectronics</i> , 2020, 167, 112496.	5.3	117
29	Quasi-3D Plasmonic Nanowell Array for Molecular Enrichment and SERS-Based Detection. <i>Nanomaterials</i> , 2020, 10, 939.	1.9	3
30	Simple Fabrication of Transparent, Colorless, and Self-Disinfecting Polyethylene Terephthalate Film via Cold Plasma Treatment. <i>Nanomaterials</i> , 2020, 10, 949.	1.9	9
31	Encapsulation of 3D plasmonic nanostructures with ultrathin hydrogel skin for rapid and direct detection of toxic small molecules in complex fluids. <i>Nanoscale</i> , 2020, 12, 12942-12949.	2.8	13
32	3D-assembled Ag nanowires for use in plasmon-enhanced spectroscopic sensors. <i>Applied Spectroscopy Reviews</i> , 2019, 54, 325-347.	3.4	12
33	Development of a robust, self-cleaning, amphiphobic, and electrically conductive coating on a flexible polymer substrate. <i>Materials and Design</i> , 2019, 182, 108023.	3.3	18
34	Self-Assembly of Nanoparticle-Spiked Pillar Arrays for Plasmonic Biosensing. <i>Advanced Functional Materials</i> , 2019, 29, 1904257.	7.8	47
35	Highly Sensitive and Selective Nanogap-Enhanced SERS Sensing Platform. <i>Nanomaterials</i> , 2019, 9, 619.	1.9	9
36	A facile low-cost paper-based SERS substrate for label-free molecular detection. <i>Sensors and Actuators B: Chemical</i> , 2019, 291, 369-377.	4.0	68

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37	Compact Integration of TiO ₂ Nanoparticles into the Cross-Points of 3D Vertically Stacked Ag Nanowires for Plasmon-Enhanced Photocatalysis. <i>Nanomaterials</i> , 2019, 9, 468.	1.9	17
38	Direct visualization of a surface-enhanced Raman spectroscopy nano-gap via electrostatic force microscopy: Dependence on charge transfer from the underlying surface nano-gap distance. <i>Applied Surface Science</i> , 2019, 479, 874-878.	3.1	8
39	3D nanoporous plasmonic chips for extremely sensitive NO ₂ detection. <i>Analyst, The</i> , 2019, 144, 7162-7167.	1.7	7
40	Microfluidic Designing Microgels Containing Highly Concentrated Gold Nanoparticles for SERS Analysis of Complex Fluids. <i>Small</i> , 2019, 15, e1905076.	5.2	32
41	Hydrophobic hBN-coated surface-enhanced Raman scattering sponge sensor for simultaneous separation and detection of organic pollutants. <i>Journal of Materials Chemistry C</i> , 2019, 7, 13059-13069.	2.7	22
42	M13 Bacteriophage/Silver Nanowire Surface-Enhanced Raman Scattering Sensor for Sensitive and Selective Pesticide Detection. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10388-10397.	4.0	69
43	Fabrication and near-field visualization of a wafer-scale dense plasmonic nanostructured array. <i>RSC Advances</i> , 2018, 8, 6444-6451.	1.7	8
44	Culture-Free Detection of Bacterial Pathogens on Plasmonic Nanopillar Arrays Using Rapid Raman Mapping. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6831-6840.	4.0	54
45	Raman Scattering Mapping: Sensitive and Reproducible Immunoassay of Multiple Mycotoxins Using Surface-Enhanced Raman Scattering Mapping on 3D Plasmonic Nanopillar Arrays (<i>Small</i> 39/2018). <i>Small</i> , 2018, 14, 1870179.	5.2	21
46	Sensitive and Reproducible Immunoassay of Multiple Mycotoxins Using Surface-Enhanced Raman Scattering Mapping on 3D Plasmonic Nanopillar Arrays. <i>Small</i> , 2018, 14, e1801623.	5.2	67
47	SERS-Active Charged Microgels for Size- and Charge-Selective Molecular Analysis of Complex Biological Samples. <i>Small</i> , 2018, 14, e1802520.	5.2	40
48	Highly sensitive and on-site NO ₂ SERS sensors operated under ambient conditions. <i>Analyst, The</i> , 2018, 143, 3006-3010.	1.7	27
49	Holographic Fabrication of 3D Nanostructures. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800330.	1.9	17
50	Uniform Microgels Containing Agglomerates of Silver Nanocubes for Molecular Size-Selectivity and High SERS Activity. <i>Small</i> , 2017, 13, 1604048.	5.2	25
51	3D multilayered plasmonic nanostructures with high areal density for SERS. <i>RSC Advances</i> , 2017, 7, 17898-17905.	1.7	22
52	Surface Energy-Controlled SERS Substrates for Molecular Concentration at Plasmonic Nanogaps. <i>Advanced Functional Materials</i> , 2017, 27, 1703376.	7.8	84
53	Nanostructured plasmonic substrates for use as SERS sensors. <i>Nano Convergence</i> , 2016, 3, 18.	6.3	99
54	Stacked Disk Nanotower Arrays for Use as Omniphobic Surface-Enhanced Raman Scattering Substrates. <i>Advanced Optical Materials</i> , 2016, 4, 1893-1900.	3.6	16

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55	Analyte-concentrating 3D hybrid plasmonic nanostructures for use in highly sensitive chemical sensors. RSC Advances, 2016, 6, 92120-92126.	1.7	19
56	Fabrication of Au-Decorated 3D ZnO Nanostructures as Recyclable SERS Substrates. IEEE Sensors Journal, 2016, 16, 3382-3386.	2.4	16
57	Metal Nanoparticle-Loaded Microgels with Selective Permeability for Direct Detection of Small Molecules in Biological Fluids. Chemistry of Materials, 2016, 28, 1559-1565.	3.2	34
58	Standing-Wave-Assisted Creation of Nanopillar Arrays with Vertically Integrated Nanogaps for SERS-Active Substrates. Advanced Functional Materials, 2015, 25, 4681-4688.	7.8	49
59	3D Hybrid Plasmonic Nanomaterials for Highly Efficient Optical Absorbers and Sensors. Advanced Materials, 2015, 27, 4290-4295.	11.1	69
60	Charge-transfer-based Gas Sensing Using Atomic-layer MoS ₂ . Scientific Reports, 2015, 5, 8052.	1.6	489
61	Chemical Sensing of 2D Graphene/MoS ₂ Heterostructure device. ACS Applied Materials & Interfaces, 2015, 7, 16775-16780.	4.0	375
62	Characterization of microcrystalline silicon thin film solar cells prepared by high working pressure plasma-enhanced chemical vapor deposition. Journal of Electroceramics, 2014, 33, 149-154.	0.8	5
63	Hierarchical Structures: 3D Hierarchical Architectures Prepared by Single Exposure Through a Highly Durable Colloidal Phase Mask (Adv. Mater. 9/2014). Advanced Materials, 2014, 26, 1421-1421.	11.1	1
64	3D Hierarchical Architectures Prepared by Single Exposure Through a Highly Durable Colloidal Phase Mask. Advanced Materials, 2014, 26, 1422-1426.	11.1	45
65	Fabrication of 3D ZnO hollow shell structures by prism holographic lithography and atomic layer deposition. Journal of Materials Chemistry C, 2014, 2, 1957-1961.	2.7	20
66	Graphene-based gas sensor: metal decoration effect and application to a flexible device. Journal of Materials Chemistry C, 2014, 2, 5280-5285.	2.7	198
67	Ultrasoother, extremely deformable and shape recoverable Ag nanowire embedded transparent electrode. Scientific Reports, 2014, 4, 4788.	1.6	194
68	Fabrication of Three-Dimensional Nanostructured Titania Materials by Prism Holographic Lithography and the Sol-Gel Reaction. Langmuir, 2013, 29, 9620-9625.	1.6	13
69	Ratchet nanofiltration of DNA. Lab on A Chip, 2013, 13, 3741.	3.1	7
70	Highly efficient hybrid thin-film solar cells using a solution-processed hole-blocking layer. Physical Chemistry Chemical Physics, 2013, 15, 1788-1792.	1.3	13
71	Doping-free silicon thin film solar cells using a vanadium pentoxide window layer and a LiF/Al back electrode. Applied Physics Letters, 2013, 103, .	1.5	12
72	Effect of in situ hydrogen plasma treatment on zinc oxide grown using low temperature atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, 01A124.	0.9	17

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73	Shape Control of Ag Nanostructures for Practical SERS Substrates. ACS Applied Materials & Interfaces, 2013, 5, 243-248.	4.0	50
74	Fabrication of highly uniform three-dimensional SERS substrates by control of wettability. Journal of Materials Chemistry C, 2013, 1, 426-431.	2.7	20
75	Multicolor patterning using holographic woodpile photonic crystals at visible wavelengths. Nanoscale, 2013, 5, 4110.	2.8	10
76	Structural characterization of wavelength-dependent Raman scattering and laser-induced crystallization of silicon thin films. Thin Solid Films, 2013, 542, 388-392.	0.8	15
77	Anisotropic wetting and superhydrophobicity on holographically featured 3D nanostructured surfaces. Soft Matter, 2012, 8, 4567.	1.2	39
78	Optically tunable arrayed structures for highly sensitive plasmonic detection via simplified holographic lithography. Journal of Materials Chemistry, 2012, 22, 4603.	6.7	21
79	DNA electrophoresis in a nanofence array. Lab on A Chip, 2012, 12, 1463.	3.1	26
80	Efficient Hydrogenated Amorphous Silicon Thin-Film Solar Cells Using Zinc Oxide Deposited by Atomic Layer Deposition as a Protective Interfacial Layer. Journal of Physical Chemistry C, 2012, 116, 23231-23235.	1.5	11
81	Dual length-scale nanotip arrays with controllable morphological features for highly sensitive SERS applications. Journal of Materials Chemistry, 2012, 22, 23650.	6.7	13
82	Fabrication of microparticles with controllable internal woodpile structures for highly efficient sensing applications. RSC Advances, 2012, 2, 2334.	1.7	18
83	Cu ₂ O Inverse Woodpile Photonic Crystals by Prism Holographic Lithography and Electrodeposition. Advanced Materials, 2011, 23, 2749-2752.	11.1	55
84	Perfectly Hydrophobic Surfaces with Patterned Nanoneedles of Controllable Features. Langmuir, 2010, 26, 5295-5299.	1.6	36
85	Bioinspired Holographically Featured Superhydrophobic and Supersticky Nanostructured Materials. Langmuir, 2010, 26, 1468-1472.	1.6	58
86	Holographic fabrication of three-dimensional nanostructures for microfluidic passive mixing. Lab on A Chip, 2009, 9, 3144.	3.1	66
87	Optofluidics technology based on colloids and their assemblies. Microfluidics and Nanofluidics, 2008, 4, 129-144.	1.0	27
88	Thermoresponsive Hydrogel Photonic Crystals by Three-Dimensional Holographic Lithography. Advanced Materials, 2008, 20, 3061-3065.	11.1	98
89	Holographic fabrication of photonic nanostructures for optofluidic integration. Lab on A Chip, 2008, 8, 388.	3.1	54
90	Quantitative Structure and Property Analysis of Nanoporous Low Dielectric Constant SiCOH Thin Films. Journal of Physical Chemistry C, 2007, 111, 10848-10854.	1.5	32