

Jaebum Choo

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109
papers

7,124
citations

42
h-index

83
g-index

113
ext. papers

8,915
ext. citations

8.9
avg, IF

6.31
L-index

#	Paper	IF	Citations
109	Present and Future of Surface-Enhanced Raman Scattering. <i>ACS Nano</i> , 2020 , 14, 28-117	16.7	1000
108	Fluorescent chemical probes for accurate tumor diagnosis and targeting therapy. <i>Chemical Society Reviews</i> , 2017 , 46, 2237-2271	58.5	484
107	Highly sensitive immunoassay of lung cancer marker carcinoembryonic antigen using surface-enhanced Raman scattering of hollow gold nanospheres. <i>Analytical Chemistry</i> , 2009 , 81, 3029-34	7.8	277
106	Biological imaging of HEK293 cells expressing PLCgamma1 using surface-enhanced Raman microscopy. <i>Analytical Chemistry</i> , 2007 , 79, 916-22	7.8	236
105	A SERS-based lateral flow assay biosensor for highly sensitive detection of HIV-1 DNA. <i>Biosensors and Bioelectronics</i> , 2016 , 78, 530-537	11.8	235
104	Simultaneous Detection of Dual Prostate Specific Antigens Using Surface-Enhanced Raman Scattering-Based Immunoassay for Accurate Diagnosis of Prostate Cancer. <i>ACS Nano</i> , 2017 , 11, 4926-4933	16.7	228
103	Nanomaterial-assisted aptamers for optical sensing. <i>Biosensors and Bioelectronics</i> , 2010 , 25, 1859-68	11.8	207
102	Plasmonic colorimetric sensors based on etching and growth of noble metal nanoparticles: Strategies and applications. <i>Biosensors and Bioelectronics</i> , 2018 , 114, 52-65	11.8	197
101	Application of a SERS-based lateral flow immunoassay strip for the rapid and sensitive detection of staphylococcal enterotoxin B. <i>Nanoscale</i> , 2016 , 8, 11418-25	7.7	189
100	Rapid and sensitive phenotypic marker detection on breast cancer cells using surface-enhanced Raman scattering (SERS) imaging. <i>Biosensors and Bioelectronics</i> , 2014 , 51, 238-43	11.8	161
99	Surface-enhanced Raman scattering imaging of HER2 cancer markers overexpressed in single MCF7 cells using antibody conjugated hollow gold nanospheres. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 2260-3	11.8	156
98	Simultaneous Detection of Dual Nucleic Acids Using a SERS-Based Lateral Flow Assay Biosensor. <i>Analytical Chemistry</i> , 2017 , 89, 1163-1169	7.8	152
97	A portable surface-enhanced Raman scattering sensor integrated with a lab-on-a-chip for field analysis. <i>Lab on A Chip</i> , 2008 , 8, 2214-9	7.2	140
96	SERS imaging of HER2-overexpressed MCF7 cells using antibody-conjugated gold nanorods. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 7444-9	3.6	137
95	Fabrication of SERS-fluorescence dual modal nanoprobe and application to multiplex cancer cell imaging. <i>Nanoscale</i> , 2012 , 4, 124-9	7.7	135
94	Highly reproducible immunoassay of cancer markers on a gold-patterned microarray chip using surface-enhanced Raman scattering imaging. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 2135-41	11.8	112
93	Simultaneous immunoassay for the detection of two lung cancer markers using functionalized SERS nanoprobe. <i>Chemical Communications</i> , 2011 , 47, 12515-7	5.8	111

92	Wash-free magnetic immunoassay of the PSA cancer marker using SERS and droplet microfluidics. <i>Lab on A Chip</i> , 2016 , 16, 1022-9	7.2	110
91	On-chip immunoassay using surface-enhanced Raman scattering of hollow gold nanospheres. <i>Analytical Chemistry</i> , 2010 , 82, 5290-5	7.8	100
90	Quantum Dot-Based Molecularly Imprinted Polymers on Three-Dimensional Origami Paper Microfluidic Chip for Fluorescence Detection of Phycocyanin. <i>ACS Sensors</i> , 2017 , 2, 243-250	9.2	94
89	Optical Nanoprobes for Ultrasensitive Immunoassay. <i>Analytical Chemistry</i> , 2017 , 89, 124-137	7.8	94
88	Highly sensitive detection of high-risk bacterial pathogens using SERS-based lateral flow assay strips. <i>Sensors and Actuators B: Chemical</i> , 2018 , 270, 72-79	8.5	92
87	SERS-based immunoassay using a gold array-embedded gradient microfluidic chip. <i>Lab on A Chip</i> , 2012 , 12, 3720-7	7.2	91
86	Highly sensitive SERS-based immunoassay of aflatoxin B1 using silica-encapsulated hollow gold nanoparticles. <i>Journal of Hazardous Materials</i> , 2015 , 285, 11-7	12.8	90
85	Molecular Imprinting: Green Perspectives and Strategies. <i>Advanced Materials</i> , 2021 , 33, e2100543	24	85
84	SERS-based competitive immunoassay of troponin I and CK-MB markers for early diagnosis of acute myocardial infarction. <i>Chemical Communications</i> , 2014 , 50, 1058-60	5.8	84
83	Highly sensitive detection of thrombin using SERS-based magnetic aptasensors. <i>Biosensors and Bioelectronics</i> , 2013 , 47, 62-7	11.8	81
82	Application of Silver-Coated Magnetic Microspheres to a SERS-Based Optofluidic Sensor. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 6290-6296	3.8	72
81	Green multi-functional monomer based ion imprinted polymers for selective removal of copper ions from aqueous solution. <i>Journal of Colloid and Interface Science</i> , 2019 , 541, 376-386	9.3	71
80	Quantitative analysis of thyroid-stimulating hormone (TSH) using SERS-based lateral flow immunoassay. <i>Sensors and Actuators B: Chemical</i> , 2017 , 240, 358-364	8.5	71
79	Fast and sensitive detection of an anthrax biomarker using SERS-based solenoid microfluidic sensor. <i>Biosensors and Bioelectronics</i> , 2015 , 72, 230-6	11.8	68
78	Highly Sensitive Detection of Hormone Estradiol E2 Using Surface-Enhanced Raman Scattering Based Immunoassays for the Clinical Diagnosis of Precocious Puberty. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 10665-72	9.5	57
77	Simultaneous immunoassays of dual prostate cancer markers using a SERS-based microdroplet channel. <i>Biosensors and Bioelectronics</i> , 2018 , 119, 126-133	11.8	56
76	SERS imaging-based aptasensor for ultrasensitive and reproducible detection of influenza virus A. <i>Biosensors and Bioelectronics</i> , 2020 , 167, 112496	11.8	56
75	Naked-eye sensitive ELISA-like assay based on gold-enhanced peroxidase-like immunogold activity. <i>Analytical and Bioanalytical Chemistry</i> , 2016 , 408, 1015-22	4.4	51

74	Sensitive and Reproducible Immunoassay of Multiple Mycotoxins Using Surface-Enhanced Raman Scattering Mapping on 3D Plasmonic Nanopillar Arrays. <i>Small</i> , 2018 , 14, e1801623	11	51
73	Ratiometric fluorescence and colorimetry dual-mode assay based on manganese dioxide nanosheets for visual detection of alkaline phosphatase activity. <i>Sensors and Actuators B: Chemical</i> , 2020 , 302, 127176	8.5	51
72	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	9.5	50
71	DNA hybridization detection in a microfluidic channel using two fluorescently labelled nucleic acid probes. <i>Biosensors and Bioelectronics</i> , 2008 , 23, 1878-82	11.8	49
70	SERS biosensors for ultrasensitive detection of multiple biomarkers expressed in cancer cells. <i>Biosensors and Bioelectronics</i> , 2020 , 164, 112326	11.8	48
69	High-throughput microfluidic imaging flow cytometry. <i>Current Opinion in Biotechnology</i> , 2019 , 55, 36-43	11.4	47
68	Preparation of silica-encapsulated hollow gold nanosphere tags using layer-by-layer method for multiplex surface-enhanced raman scattering detection. <i>Langmuir</i> , 2011 , 27, 10228-33	4	44
67	SERS-based immunoassay of tumor marker VEGF using DNA aptamers and silica-encapsulated hollow gold nanospheres. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 5379-85	3.6	42
66	Recent advances in surface-enhanced Raman scattering-based microdevices for point-of-care diagnosis of viruses and bacteria. <i>Nanoscale</i> , 2020 , 12, 21560-21570	7.7	42
65	SERS-based droplet microfluidics for high-throughput gradient analysis. <i>Lab on A Chip</i> , 2019 , 19, 674-681	7.2	41
64	3D Droplet Microfluidic Systems for High-Throughput Biological Experimentation. <i>Analytical Chemistry</i> , 2015 , 87, 10770-8	7.8	40
63	One-step detection of melamine in milk by hollow gold chip based on surface-enhanced Raman scattering. <i>Talanta</i> , 2014 , 122, 80-4	6.2	40
62	A facile low-cost paper-based SERS substrate for label-free molecular detection. <i>Sensors and Actuators B: Chemical</i> , 2019 , 291, 369-377	8.5	39
61	Culture-Free Detection of Bacterial Pathogens on Plasmonic Nanopillar Arrays Using Rapid Raman Mapping. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 6831-6840	9.5	39
60	Quantitative Serodiagnosis of Scrub Typhus Using Surface-Enhanced Raman Scattering-Based Lateral Flow Assay Platforms. <i>Analytical Chemistry</i> , 2019 , 91, 12275-12282	7.8	38
59	SERS-active Au@Ag core-shell nanorod (Au@AgNR) tags for ultrasensitive bacteria detection and antibiotic-susceptibility testing. <i>Talanta</i> , 2020 , 220, 121397	6.2	38
58	Sensitive Detection of SARS-CoV-2 Using a SERS-Based Aptasensor. <i>ACS Sensors</i> , 2021 , 6, 2378-2385	9.2	38
57	Gold nanorods functionalized by a glutathione response near-infrared fluorescent probe as a promising nanoplatfrom for fluorescence imaging guided precision therapy. <i>Nanoscale</i> , 2019 , 11, 12220-12229 ³⁶	7.7	36

56	Detection of the mycotoxin citrinin using silver substrates and Raman spectroscopy. <i>Journal of Hazardous Materials</i> , 2014 , 265, 89-95	12.8	36
55	Multi-emitting fluorescence sensor of MnO ₂ @PDAD for the multiplex and visual detection of ascorbic acid and alkaline phosphatase. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 5554-5561	7.1	31
54	Integrated SERS-Based Microdroplet Platform for the Automated Immunoassay of F1 Antigens in <i>Yersinia pestis</i> . <i>Analytical Chemistry</i> , 2017 , 89, 8413-8420	7.8	31
53	Integrated hand-powered centrifugation and paper-based diagnosis with blood-in/answer-out capabilities. <i>Biosensors and Bioelectronics</i> , 2020 , 165, 112282	11.8	29
52	Ultrasensitive trace analysis for 2,4,6-trinitrotoluene using nano-dumbbell surface-enhanced Raman scattering hot spots. <i>Analyst, The</i> , 2014 , 139, 807-12	5	29
51	Reinforcement Learning for Dynamic Microfluidic Control. <i>ACS Omega</i> , 2018 , 3, 10084-10091	3.9	29
50	Adsorption and desorption of tyrosine kinase inhibitor erlotinib on gold nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2014 , 425, 96-101	9.3	27
49	Simultaneous detection of duplex DNA oligonucleotides using a SERS-based micro-network gradient chip. <i>Lab on A Chip</i> , 2012 , 12, 5160-7	7.2	27
48	SERS-based immunoassay using gold-patterned array chips for rapid and sensitive detection of dual cardiac biomarkers. <i>Analyst, The</i> , 2019 , 144, 6533-6540	5	26
47	Colloidal gold nanoparticle conjugates of gefitinib. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014 , 123, 61-76		25
46	Recent advances in sensitive surface-enhanced Raman scattering-based lateral flow assay platforms for point-of-care diagnostics of infectious diseases. <i>Sensors and Actuators B: Chemical</i> , 2021 , 329, 129214	8.5	25
45	A Wearable Surface-Enhanced Raman Scattering Sensor for Label-Free Molecular Detection. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 3024-3032	9.5	25
44	SERS-based genetic assay for amplification-free detection of prostate cancer specific PCA3 mimic DNA. <i>Sensors and Actuators B: Chemical</i> , 2017 , 251, 302-309	8.5	24
43	An optofluidic system with integrated microlens arrays for parallel imaging flow cytometry. <i>Lab on A Chip</i> , 2018 , 18, 3631-3637	7.2	24
42	Epitaxy-driven vertical growth of single-crystalline cobalt nanowire arrays by chemical vapor deposition. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 100-106	7.1	23
41	Surfactant-Free Vapor-Phase Synthesis of Single-Crystalline Gold Nanoplates for Optimally Bioactive Surfaces. <i>Chemistry of Materials</i> , 2017 , 29, 8747-8756	9.6	22
40	SERS-based test strips: Principles, designs and applications. <i>Biosensors and Bioelectronics</i> , 2021 , 189, 113360	11.8	22
39	Early Diagnosis of Influenza Virus A Using Surface-enhanced Raman Scattering-based Lateral Flow Assay. <i>Bulletin of the Korean Chemical Society</i> , 2016 , 37, 2019-2024	1.2	20

38	Performance Evaluation of Surface-Enhanced Raman Scattering-Polymerase Chain Reaction Sensors for Future Use in Sensitive Genetic Assays. <i>Analytical Chemistry</i> , 2020 , 92, 2628-2634	7.8	19
37	PEGylated nanographene-mediated metallic nanoparticle clusters for surface enhanced Raman scattering-based biosensing. <i>Analyst, The</i> , 2018 , 143, 2604-2615	5	18
36	Nanoscale graphene oxide-induced metallic nanoparticle clustering for surface-enhanced Raman scattering-based IgG detection. <i>Sensors and Actuators B: Chemical</i> , 2018 , 255, 183-192	8.5	18
35	A droplet-based microfluidic immunosensor for high efficiency melamine analysis. <i>Biosensors and Bioelectronics</i> , 2016 , 80, 182-186	11.8	18
34	Detection of hypochlorous acid fluctuation via a selective near-infrared fluorescent probe in living cells and in vivo under hypoxic stress. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 2557-2564	7.3	17
33	Fabrication of a hydrophobic/hydrophilic hybrid-patterned microarray chip and its application to a cancer marker immunoassay. <i>Biochip Journal</i> , 2012 , 6, 10-16	4	16
32	Clinical validation of surface-enhanced Raman scattering-based immunoassays in the early diagnosis of rheumatoid arthritis. <i>Analytical and Bioanalytical Chemistry</i> , 2015 , 407, 8353-62	4.4	15
31	Use of surface-enhanced Raman scattering to quantify EGFR markers uninhibited by cetuximab antibodies. <i>Biosensors and Bioelectronics</i> , 2014 , 60, 358-65	11.8	15
30	Improvement of reproducibility and thermal stability of surface-enhanced Raman scattering-based lateral flow assay strips using silica-encapsulated gold nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2020 , 321, 128521	8.5	14
29	SERS-Based Immunoassays for the Detection of Botulinum Toxins A and B Using Magnetic Beads. <i>Sensors</i> , 2019 , 19,	3.8	14
28	Raman Scattering Mapping: Sensitive and Reproducible Immunoassay of Multiple Mycotoxins Using Surface-Enhanced Raman Scattering Mapping on 3D Plasmonic Nanopillar Arrays (Small 39/2018). <i>Small</i> , 2018 , 14, 1870179	11	14
27	Fluoropolymer-Coated PDMS Microfluidic Devices for Application in Organic Synthesis. <i>Chemistry - A European Journal</i> , 2018 , 24, 12078-12083	4.8	12
26	SERS-PCR assays of SARS-CoV-2 target genes using Au nanoparticles-internalized Au nanodimple substrates. <i>Biosensors and Bioelectronics</i> , 2022 , 197, 113736	11.8	10
25	Cut-and-Paste Transferrable Pressure Sensing Cartridge Films. <i>Chemistry of Materials</i> , 2018 , 30, 6410-6419	9.6	10
24	Surface-Enhanced Raman Scattering-Based Dual-Flow Lateral Flow Assay Sensor for the Ultrasensitive Detection of the Thyroid-Stimulating Hormone. <i>Analytical Chemistry</i> , 2021 , 93, 6673-6681	7.8	9
23	Reproducible and Sensitive Plasmonic Sensing Platforms Based on Au-Nanoparticle-Internalized Nanodimpled Substrates. <i>Advanced Functional Materials</i> , 2015 , 25, 2105703	15.6	9
22	A novel nanoprobe for the sensitive detection of Francisella tularensis. <i>Journal of Hazardous Materials</i> , 2015 , 298, 188-94	12.8	8
21	Analysis of ribonuclease activity in sub-nanoliter droplets by label-free fluorescence measurements. <i>Analyst, The</i> , 2017 , 142, 2610-2616	5	6

20	Epitaxially aligned submillimeter-scale silver nanoplates grown by simple vapor transport. <i>Nanoscale</i> , 2019 , 11, 17436-17443	7.7	6
19	Three-dimensionally kinked high-conducting CoGe nanowire growth induced by rotational twinning. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 6259	7.1	5
18	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	6.7	5
17	Experimental investigation of surface morphology of a chemical vapor deposition-grown graphene monolayer mediating with a gap-plasmonic system and the related ripple shape study. <i>Journal of Applied Physics</i> , 2018 , 124, 223101	2.5	5
16	SERS-based serodiagnosis of acute febrile diseases using plasmonic nanopopcorn microarray platforms. <i>Biosensors and Bioelectronics</i> , 2021 , 192, 113525	11.8	5
15	SERS-based dual-mode DNA aptasensors for rapid classification of SARS-CoV-2 and influenza A/H1N1 infection.. <i>Sensors and Actuators B: Chemical</i> , 2022 , 355, 131324	8.5	4
14	Determination of total iron-binding capacity of transferrin using metal organic framework-based surface-enhanced Raman scattering spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2021 , 52, 506-515	2.3	4
13	Development of surface-enhanced Raman scattering-based immunoassay platforms using hollow Au nanostars for reliable SARS-CoV-2 diagnosis.. <i>Bulletin of the Korean Chemical Society</i> , 2021 , 42, 1699	1.2	3
12	Analysis of deoxyribonuclease activity by conjugation-free fluorescence polarisation in sub-nanolitre droplets. <i>Analyst, The</i> , 2020 , 145, 3222-3228	5	2
11	Surface-enhanced Raman scattering-based immunoassay for severe acute respiratory syndrome coronavirus 2.. <i>Biosensors and Bioelectronics</i> , 2022 , 202, 114008	11.8	2
10	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	8.5	2
9	Fluorescent probes for biomolecule detection under environmental stress.. <i>Journal of Hazardous Materials</i> , 2022 , 431, 128527	12.8	2
8	Sensitive and reproducible detection of SARS-CoV-2 using SERS-based microdroplet sensor. <i>Chemical Engineering Journal</i> , 2022 , 446, 137085	14.7	2
7	Application of SERS-Based Microfluidics for In Vitro Diagnostics. <i>Bioanalysis</i> , 2019 , 53-70	0.5	1
6	Biomedical Applications of Surface-Enhanced Raman Scattering Spectroscopy 2018 , 307-326		1
5	CoumarinΠpoic acid conjugates on silver nanoparticle-supported nanopipettes for in situ dual-mode monitoring of intracellular Cu(II) and potential chemodynamic therapy applications. <i>Sensors and Actuators B: Chemical</i> , 2021 , 344, 130271	8.5	1
4	Raman Imaging Probes for Cancer Research 2012 , 545-565		
3	Reproducible and Sensitive Plasmonic Sensing Platforms Based on Au-Nanoparticle-Internalized Nanodimpled Substrates (Adv. Funct. Mater. 49/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170366 ^{15.6}		

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1 iSERS Bioassays **2022**, 245-271