Jaebum Choo

List of Publications by Year
in descending order

113	10,733	34076	30894
papers	citations	52 h-index	102 g-index

113	113	113	11697
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Present and Future of Surface-Enhanced Raman Scattering. ACS Nano, 2020, 14, 28-117.	7.3	2,153
2	Fluorescent chemical probes for accurate tumor diagnosis and targeting therapy. Chemical Society Reviews, 2017, 46, 2237-2271.	18.7	658
3	Molecular Imprinting: Green Perspectives and Strategies. Advanced Materials, 2021, 33, e2100543.	11.1	359
4	Simultaneous Detection of Dual Prostate Specific Antigens Using Surface-Enhanced Raman Scattering-Based Immunoassay for Accurate Diagnosis of Prostate Cancer. ACS Nano, 2017, 11, 4926-4933.	7.3	305
5	A SERS-based lateral flow assay biosensor for highly sensitive detection of HIV-1 DNA. Biosensors and Bioelectronics, 2016, 78, 530-537.	5.3	304
6	Highly Sensitive Immunoassay of Lung Cancer Marker Carcinoembryonic Antigen Using Surface-Enhanced Raman Scattering of Hollow Gold Nanospheres. Analytical Chemistry, 2009, 81, 3029-3034.	3.2	292
7	Plasmonic colorimetric sensors based on etching and growth of noble metal nanoparticles: Strategies and applications. Biosensors and Bioelectronics, 2018, 114, 52-65.	5.3	281
8	Biological Imaging of HEK293 Cells Expressing PLCÎ³1 Using Surface-Enhanced Raman Microscopy. Analytical Chemistry, 2007, 79, 916-922.	3.2	262
9	Application of a SERS-based lateral flow immunoassay strip for the rapid and sensitive detection of staphylococcal enterotoxin B. Nanoscale, 2016, 8, 11418-11425.	2.8	235
10	Nanomaterial-assisted aptamers for optical sensing. Biosensors and Bioelectronics, 2010, 25, 1859-1868.	5.3	229
11	Simultaneous Detection of Dual Nucleic Acids Using a SERS-Based Lateral Flow Assay Biosensor. Analytical Chemistry, 2017, 89, 1163-1169.	3.2	208
12	Rapid and sensitive phenotypic marker detection on breast cancer cells using surface-enhanced Raman scattering (SERS) imaging. Biosensors and Bioelectronics, 2014, 51, 238-243.	5.3	179
13	Surface-enhanced Raman scattering imaging of HER2 cancer markers overexpressed in single MCF7 cells using antibody conjugated hollow gold nanospheres. Biosensors and Bioelectronics, 2009, 24, 2260-2263.	5.3	168
14	A portable surface-enhanced Raman scattering sensor integrated with a lab-on-a-chip for field analysis. Lab on A Chip, 2008, 8, 2214.	3.1	152
15	Wash-free magnetic immunoassay of the PSA cancer marker using SERS and droplet microfluidics. Lab on A Chip, 2016, 16, 1022-1029.	3.1	151
16	Fabrication of SERS-fluorescence dual modal nanoprobes and application to multiplex cancer cell imaging. Nanoscale, 2012, 4, 124-129.	2.8	148
17	SERS imaging of HER2-overexpressed MCF7 cells using antibody-conjugated gold nanorods. Physical Chemistry Chemical Physics, 2009, 11, 7444.	1.3	145
18	Highly reproducible immunoassay of cancer markers on a gold-patterned microarray chip using surface-enhanced Raman scattering imaging. Biosensors and Bioelectronics, 2011, 26, 2135-2141.	5.3	132

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19	Highly sensitive detection of high-risk bacterial pathogens using SERS-based lateral flow assay strips. Sensors and Actuators B: Chemical, 2018, 270, 72-79.	4.0	124
20	Quantum Dot-Based Molecularly Imprinted Polymers on Three-Dimensional Origami Paper Microfluidic Chip for Fluorescence Detection of Phycocyanin. ACS Sensors, 2017, 2, 243-250.	4.0	123
21	Optical Nanoprobes for Ultrasensitive Immunoassay. Analytical Chemistry, 2017, 89, 124-137.	3.2	119
22	Simultaneous immunoassay for the detection of two lung cancer markers using functionalized SERS nanoprobes. Chemical Communications, 2011, 47, 12515.	2.2	118
23	SERS imaging-based aptasensor for ultrasensitive and reproducible detection of influenza virus A. Biosensors and Bioelectronics, 2020, 167, 112496.	5.3	117
24	SERS-based immunoassay using a gold array-embedded gradient microfluidic chip. Lab on A Chip, 2012, 12, 3720.	3.1	112
25	On-Chip Immunoassay Using Surface-Enhanced Raman Scattering of Hollow Gold Nanospheres. Analytical Chemistry, 2010, 82, 5290-5295.	3.2	110
26	Sensitive Detection of SARS-CoV-2 Using a SERS-Based Aptasensor. ACS Sensors, 2021, 6, 2378-2385.	4.0	109
27	SERS-based competitive immunoassay of troponin I and CK-MB markers for early diagnosis of acute myocardial infarction. Chemical Communications, 2014, 50, 1058-1060.	2.2	107
28	Highly sensitive SERS-based immunoassay of aflatoxin B1 using silica-encapsulated hollow gold nanoparticles. Journal of Hazardous Materials, 2015, 285, 11-17.	6.5	105
29	Green multi-functional monomer based ion imprinted polymers for selective removal of copper ions from aqueous solution. Journal of Colloid and Interface Science, 2019, 541, 376-386.	5.0	105
30	SERS-based test strips: Principles, designs and applications. Biosensors and Bioelectronics, 2021, 189, 113360.	5.3	100
31	High-throughput microfluidic imaging flow cytometry. Current Opinion in Biotechnology, 2019, 55, 36-43.	3.3	98
32	Highly sensitive detection of thrombin using SERS-based magnetic aptasensors. Biosensors and Bioelectronics, 2013, 47, 62-67.	5.3	91
33	Ratiometric fluorescence and colorimetry dual-mode assay based on manganese dioxide nanosheets for visual detection of alkaline phosphatase activity. Sensors and Actuators B: Chemical, 2020, 302, 127176.	4.0	89
34	SERS biosensors for ultrasensitive detection of multiple biomarkers expressed in cancer cells. Biosensors and Bioelectronics, 2020, 164, 112326.	5.3	89
35	Quantitative analysis of thyroid-stimulating hormone (TSH) using SERS-based lateral flow immunoassay. Sensors and Actuators B: Chemical, 2017, 240, 358-364.	4.0	87
36	Fast and sensitive detection of an anthrax biomarker using SERS-based solenoid microfluidic sensor. Biosensors and Bioelectronics, 2015, 72, 230-236.	5.3	84

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37	Simultaneous immunoassays of dual prostate cancer markers using a SERS-based microdroplet channel. Biosensors and Bioelectronics, 2018, 119, 126-133.	5.3	82
38	Recent advances in surface-enhanced Raman scattering-based microdevices for point-of-care diagnosis of viruses and bacteria. Nanoscale, 2020, 12, 21560-21570.	2.8	81
39	Application of Silver-Coated Magnetic Microspheres to a SERS-Based Optofluidic Sensor. Journal of Physical Chemistry C, 2011, 115, 6290-6296.	1.5	77
40	Highly Sensitive Detection of Hormone Estradiol E2 Using Surface-Enhanced Raman Scattering Based Immunoassays for the Clinical Diagnosis of Precocious Puberty. ACS Applied Materials & Interfaces, 2016, 8, 10665-10672.	4.0	73
41	A Wearable Surface-Enhanced Raman Scattering Sensor for Label-Free Molecular Detection. ACS Applied Materials & Interfaces, 2021, 13, 3024-3032.	4.0	70
42	M13 Bacteriophage/Silver Nanowire Surface-Enhanced Raman Scattering Sensor for Sensitive and Selective Pesticide Detection. ACS Applied Materials & Interfaces, 2018, 10, 10388-10397.	4.0	69
43	A facile low-cost paper-based SERS substrate for label-free molecular detection. Sensors and Actuators B: Chemical, 2019, 291, 369-377.	4.0	68
44	SERS-active Au@Ag core-shell nanorod (Au@AgNR) tags for ultrasensitive bacteria detection and antibiotic-susceptibility testing. Talanta, 2020, 220, 121397.	2.9	68
45	Sensitive and Reproducible Immunoassay of Multiple Mycotoxins Using Surfaceâ€Enhanced Raman Scattering Mapping on 3D Plasmonic Nanopillar Arrays. Small, 2018, 14, e1801623.	5.2	67
46	Quantitative Serodiagnosis of Scrub Typhus Using Surface-Enhanced Raman Scattering-Based Lateral Flow Assay Platforms. Analytical Chemistry, 2019, 91, 12275-12282.	3.2	67
47	SERS-based droplet microfluidics for high-throughput gradient analysis. Lab on A Chip, 2019, 19, 674-681.	3.1	65
48	Recent advances in sensitive surface-enhanced Raman scattering-based lateral flow assay platforms for point-of-care diagnostics of infectious diseases. Sensors and Actuators B: Chemical, 2021, 329, 129214.	4.0	65
49	Multi-emitting fluorescence sensor of MnO₂â€“OPDâ€“QD for the multiplex and visual detection of ascorbic acid and alkaline phosphatase. Journal of Materials Chemistry C, 2020, 8, 5554-5561.	2.7	62
50	Reinforcement Learning for Dynamic Microfluidic Control. ACS Omega, 2018, 3, 10084-10091.	1.6	58
51	DNA hybridization detection in a microfluidic channel using two fluorescently labelled nucleic acid probes. Biosensors and Bioelectronics, 2008, 23, 1878-1882.	5.3	57
52	Naked-eye sensitive ELISA-like assay based on gold-enhanced peroxidase-like immunogold activity. Analytical and Bioanalytical Chemistry, 2016, 408, 1015-1022.	1.9	57
53	Culture-Free Detection of Bacterial Pathogens on Plasmonic Nanopillar Arrays Using Rapid Raman Mapping. ACS Applied Materials & Interfaces, 2018, 10, 6831-6840.	4.0	54
54	Preparation of Silica-Encapsulated Hollow Gold Nanosphere Tags Using Layer-by-Layer Method for Multiplex Surface-Enhanced Raman Scattering Detection. Langmuir, 2011, 27, 10228-10233.	1.6	50

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55	SERS-based immunoassay using gold-patterned array chips for rapid and sensitive detection of dual cardiac biomarkers. Analyst, The, 2019, 144, 6533-6540.	1.7	48
56	SERS-based immunoassay of tumor marker VEGF using DNA aptamers and silica-encapsulated hollow gold nanospheres. Physical Chemistry Chemical Physics, 2013, 15, 5379-5385.	1.3	46
57	3D Droplet Microfluidic Systems for High-Throughput Biological Experimentation. Analytical Chemistry, 2015, 87, 10770-10778.	3.2	45
58	Gold nanorods functionalized by a glutathione response near-infrared fluorescent probe as a promising nanoplatform for fluorescence imaging guided precision therapy. Nanoscale, 2019, 11, 12220-12229.	2.8	45
59	Integrated hand-powered centrifugation and paper-based diagnosis with blood-in/answer-out capabilities. Biosensors and Bioelectronics, 2020, 165, 112282.	5.3	44
60	Detection of the mycotoxin citrinin using silver substrates and Raman spectroscopy. Journal of Hazardous Materials, 2014, 265, 89-95.	6.5	43
61	An optofluidic system with integrated microlens arrays for parallel imaging flow cytometry. Lab on A Chip, 2018, 18, 3631-3637.	3.1	42
62	Integrated SERS-Based Microdroplet Platform for the Automated Immunoassay of F1 Antigens in Yersinia pestis. Analytical Chemistry, 2017, 89, 8413-8420.	3.2	41
63	One-step detection of melamine in milk by hollow gold chip based on surface-enhanced Raman scattering. Talanta, 2014, 122, 80-84.	2.9	40
64	Improvement of reproducibility and thermal stability of surface-enhanced Raman scattering-based lateral flow assay strips using silica-encapsulated gold nanoparticles. Sensors and Actuators B: Chemical, 2020, 321, 128521.	4.0	40
65	Fluorescent probes for biomolecule detection under environmental stress. Journal of Hazardous Materials, 2022, 431, 128527.	6.5	40
66	SERS-based dual-mode DNA aptasensors for rapid classification of SARS-CoV-2 and influenza A/H1N1 infection. Sensors and Actuators B: Chemical, 2022, 355, 131324.	4.0	37
67	Ultrasensitive trace analysis for 2,4,6-trinitrotoluene using nano-dumbbell surface-enhanced Raman scattering hot spots. Analyst, The, 2014, 139, 807-812.	1.7	36
68	Adsorption and desorption of tyrosine kinase inhibitor erlotinib on gold nanoparticles. Journal of Colloid and Interface Science, 2014, 425, 96-101.	5.0	35
69	Colloidal gold nanoparticle conjugates of gefitinib. Colloids and Surfaces B: Biointerfaces, 2014, 123, 61-67.	2.5	35
70	SERS-PCR assays of SARS-CoV-2 target genes using Au nanoparticles-internalized Au nanodimple substrates. Biosensors and Bioelectronics, 2022, 197, 113736.	5.3	32
71	Simultaneous detection of duplex DNA oligonucleotides using a SERS-based micro-network gradient chip. Lab on A Chip, 2012, 12, 5160.	3.1	31
72	Performance Evaluation of Surface-Enhanced Raman Scatteringâ€“Polymerase Chain Reaction Sensors for Future Use in Sensitive Genetic Assays. Analytical Chemistry, 2020, 92, 2628-2634.	3.2	31

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73	Reproducible and Sensitive Plasmonic Sensing Platforms Based on Auâ€Nanoparticleâ€Internalized Nanodimpled Substrates. Advanced Functional Materials, 2021, 31, 2105703.	7.8	31
74	Surface-enhanced Raman scattering-based immunoassay for severe acute respiratory syndrome coronavirus 2. Biosensors and Bioelectronics, 2022, 202, 114008.	5.3	30
75	Surface-Enhanced Raman Scattering-Based Dual-Flow Lateral Flow Assay Sensor for the Ultrasensitive Detection of the Thyroid-Stimulating Hormone. Analytical Chemistry, 2021, 93, 6673-6681.	3.2	29
76	Detection of hypochlorous acid fluctuation via a selective near-infrared fluorescent probe in living cells and in vivo under hypoxic stress. Journal of Materials Chemistry B, 2019, 7, 2557-2564.	2.9	27
77	Epitaxy-driven vertical growth of single-crystalline cobalt nanowire arrays by chemical vapor deposition. Journal of Materials Chemistry C, 2015, 3, 100-106.	2.7	26
78	Early Diagnosis of Influenza Virus A Using Surfaceâ€enhanced Raman Scatteringâ€based Lateral Flow Assay. Bulletin of the Korean Chemical Society, 2016, 37, 2019-2024.	1.0	24
79	SERS-based genetic assay for amplification-free detection of prostate cancer specific PCA3 mimic DNA. Sensors and Actuators B: Chemical, 2017, 251, 302-309.	4.0	24
80	Surfactant-Free Vapor-Phase Synthesis of Single-Crystalline Gold Nanoplates for Optimally Bioactive Surfaces. Chemistry of Materials, 2017, 29, 8747-8756.	3.2	23
81	Sensitive and reproducible detection of SARS-CoV-2 using SERS-based microdroplet sensor. Chemical Engineering Journal, 2022, 446, 137085.	6.6	23
82	A novel polymer-based nitrocellulose platform for implementing a multiplexed microfluidic paper-based enzyme-linked immunosorbent assay. Microsystems and Nanoengineering, 2022, 8, .	3.4	23
83	PEGylated nanographene-mediated metallic nanoparticle clusters for surface enhanced Raman scattering-based biosensing. Analyst, The, 2018, 143, 2604-2615.	1.7	22
84	Raman Scattering Mapping: Sensitive and Reproducible Immunoassay of Multiple Mycotoxins Using Surfaceâ€Enhanced Raman Scattering Mapping on 3D Plasmonic Nanopillar Arrays (Small 39/2018). Small, 2018, 14, 1870179.	5.2	21
85	SERS-Based Immunoassays for the Detection of Botulinum Toxins A and B Using Magnetic Beads. Sensors, 2019, 19, 4081.	2.1	21
86	A droplet-based microfluidic immunosensor for high efficiency melamine analysis. Biosensors and Bioelectronics, 2016, 80, 182-186.	5.3	20
87	Nanoscale graphene oxide-induced metallic nanoparticle clustering for surface-enhanced Raman scattering-based IgG detection. Sensors and Actuators B: Chemical, 2018, 255, 183-192.	4.0	20
88	Fabrication of a hydrophobic/hydrophilic hybrid-patterned microarray chip and its application to a cancer marker immunoassay. Biochip Journal, 2012, 6, 10-16.	2.5	18
89	Clinical validation of surface-enhanced Raman scattering-based immunoassays in the early diagnosis of rheumatoid arthritis. Analytical and Bioanalytical Chemistry, 2015, 407, 8353-8362.	1.9	18
90	Fluoropolymerâ€Coated PDMS Microfluidic Devices for Application in Organic Synthesis. Chemistry - A European Journal, 2018, 24, 12078-12083.	1.7	18

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91	Early and direct detection of bacterial signaling molecules through one-pot Au electrodeposition onto paper-based 3D SERS substrates. Sensors and Actuators B: Chemical, 2022, 358, 131504.	4.0	18
92	Use of surface-enhanced Raman scattering to quantify EGFR markers uninhibited by cetuximab antibodies. Biosensors and Bioelectronics, 2014, 60, 358-365.	5.3	15
93	Development of surfaceâ€enhanced Raman scattering<scp>â€based</scp> immunoassay platforms using hollow Au nanostars for reliable <scp>SARSâ€CoV</scp>â€2 diagnosis. Bulletin of the Korean Chemical Society, 2021, 42, 1699-1705.	1.0	15
94	SERS-based serodiagnosis of acute febrile diseases using plasmonic nanopopcorn microarray platforms. Biosensors and Bioelectronics, 2021, 192, 113525.	5.3	14
95	Cut-and-Paste Transferrable Pressure Sensing Cartridge Films. Chemistry of Materials, 2018, 30, 6410-6419.	3.2	13
96	Determination of total ironâ€binding capacity of transferrin using metal organic frameworkâ€based surfaceâ€enhanced Raman scattering spectroscopy. Journal of Raman Spectroscopy, 2021, 52, 506-515.	1.2	13
97	Coumarinâ€“lipoic acid conjugates on silver nanoparticle-supported nanopipettes for in situ dual-mode monitoring of intracellular Cu(II) and potential chemodynamic therapy applications. Sensors and Actuators B: Chemical, 2021, 344, 130271.	4.0	11
98	A novel nanoprobe for the sensitive detection of Francisella tularensis. Journal of Hazardous Materials, 2015, 298, 188-194.	6.5	10
99	Raman Thermometry Nanopipettes in Cancer Photothermal Therapy. Analytical Chemistry, 2022, 94, 6463-6472.	3.2	10
100	Analysis of ribonuclease activity in sub-nanoliter droplets by label-free fluorescence measurements. Analyst, The, 2017, 142, 2610-2616.	1.7	9
101	Epitaxially aligned submillimeter-scale silver nanoplates grown by simple vapor transport. Nanoscale, 2019, 11, 17436-17443.	2.8	9
102	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. Applied Surface Science, 2019, 479, 874-878.	3.1	8
103	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. Journal of Applied Physics, 2018, 124, .	1.1	6
104	Three-dimensionally kinked high-conducting CoGe nanowire growth induced by rotational twinning. Journal of Materials Chemistry C, 2013, 1, 6259.	2.7	5
105	Analysis of deoxyribonuclease activity by conjugation-free fluorescence polarisation in sub-nanolitre droplets. Analyst, The, 2020, 145, 3222-3228.	1.7	4
106	Biomedical Applications of Surface-Enhanced Raman Scattering Spectroscopy. , 2018, , 307-326.		2
107	Reproducible and Sensitive Plasmonic Sensing Platforms Based on Auâ€Nanoparticleâ€Internalized Nanodimpled Substrates (Adv. Funct. Mater. 49/2021). Advanced Functional Materials, 2021, 31, 2170366.	7.8	2
108	Application of SERS-Based Microfluidics for In Vitro Diagnostics. Bioanalysis, 2019, , 53-70.	0.1	1

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109	Surface-enhanced Raman spectroscopy-based microfluidic devices for in vitro diagnostics. , 2022, , 281-302.		1
110	Cancer Diagnosis Application with Fluorescence-SERS Dual Modal Nanoprobes. , 2010, , .		0
111	Fabrication of SERS nanoprobe and its application to cancer cell imaging. , 2010, , .		0
112	Raman Imaging Probes for Cancer Research. , 2012, , 545-565.		0
113	iSERS Bioassays. , 2022, , 245-271.		0