Hakho Lee

List of Publications by Year
in descending order

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132 papers	13,484 citations	28190 55 h-index	22764 112 g-index
144 all docs	144 docs citations	144 times ranked	18679 citing authors

#	Article	IF	Citations
1	Magnetic Gold Nanoparticles with Idealized Coating for Enhanced Pointâ€Ofâ€Care Sensing. Advanced Healthcare Materials, 2022, 11, e2102035.	3.9	13
2	Computational Optics for Point-of-Care Breast Cancer Profiling. Methods in Molecular Biology, 2022, 2393, 153-162.	0.4	0
3	Multielectrode Spectroscopy Enables Rapid and Sensitive Molecular Profiling of Extracellular Vesicles. ACS Central Science, 2022, 8, 110-117.	5.3	12
4	Abstract P056: Rapid serial immunoprofiling of the tumor immune microenvironment by fine needle sampling. , 2022, , .		0
5	Advances in Biosensor Technologies for Infection Diagnostics. Accounts of Chemical Research, 2022, 55, 121-122.	7.6	9
6	Zwitterionic Polymer Electroplating Facilitates the Preparation of Electrode Surfaces for Biosensing. Advanced Materials, 2022, 34, e2107892.	11.1	17
7	Characterization and modulation of surface charges to enhance extracellular vesicle isolation in plasma. Theranostics, 2022, 12, 1988-1998.	4.6	23
8	Integrated Analytical System for Clinical Singleâ€Cell Analysis. Advanced Science, 2022, 9, e2200415.	5.6	5
9	Normalizing the Optical Signal Enables Robust Assays with Lateral Flow Biosensors. ACS Omega, 2022, 7, 17723-17731.	1.6	8
10	Recapitulated Crosstalk between Cerebral Metastatic Lung Cancer Cells and Brain Perivascular Tumor Microenvironment in a Microfluidic Coâ€Culture Chip. Advanced Science, 2022, 9, .	5.6	12
11	TERT Promoter Mutation Analysis for Blood-Based Diagnosis and Monitoring of Gliomas. Clinical Cancer Research, 2021, 27, 169-178.	3.2	50
12	Precise Nanosizing with High Dynamic Range Holography. Nano Letters, 2021, 21, 317-322.	4.5	12
13	Kaleidoscopic fluorescent arrays for machine-learning-based point-of-care chemical sensing. Sensors and Actuators B: Chemical, 2021, 329, 129248.	4.0	11
14	Engineering Materials for Electrochemical Sweat Sensing. Advanced Functional Materials, 2021, 31, 2008130.	7.8	52
15	Rapid and simple single-chamber nucleic acid detection system prepared through nature-inspired surface engineering. Theranostics, 2021, 11, 6735-6745.	4.6	1
16	On-chip analysis of glioblastoma cell chemoresistance. , 2021, , 473-490.		0
17	Electrochemical Sweat Sensing: Engineering Materials for Electrochemical Sweat Sensing (Adv. Funct.) Tj ETQq1 1 0.784314 rgBT /Ov	7.8	4
18	Fluorescence polarization system for rapid COVID-19 diagnosis. Biosensors and Bioelectronics, 2021, 178, 113049.	5.3	44

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19	An integrated magneto-electrochemical device for the rapid profiling of tumour extracellular vesicles from blood plasma. Nature Biomedical Engineering, 2021, 5, 678-689.	11.6	90
20	Rapid Serial Immunoprofiling of the Tumor Immune Microenvironment by Fine Needle Sampling. Clinical Cancer Research, 2021, 27, 4781-4793.	3.2	14
21	A rapid assay provides on-site quantification of tetrahydrocannabinol in oral fluid. Science Translational Medicine, 2021, 13, eabe2352.	5.8	12
22	Development of Integrated Systems for On-Site Infection Detection. Accounts of Chemical Research, 2021, 54, 3991-4000.	7.6	10
23	Large and small extracellular vesicles released by glioma cells in vitro and in vivo. Journal of Extracellular Vesicles, 2020, 9, 1689784.	5.5	57
24	Fast detection of SARS-CoV-2 RNA via the integration of plasmonic thermocycling and fluorescence detection in a portable device. Nature Biomedical Engineering, 2020, 4, 1159-1167.	11.6	159
25	Comprehensive Characterization of Nanosized Extracellular Vesicles from Central and Peripheral Organs: Implications for Preclinical and Clinical Applications. ACS Applied Nano Materials, 2020, 3, 8906-8919.	2.4	12
26	Molecular and Immunological Diagnostic Tests of COVID-19: Current Status and Challenges. IScience, 2020, 23, 101406.	1.9	144
27	CytoPANâ€"Portable cellular analyses for rapid point-of-care cancer diagnosis. Science Translational Medicine, 2020, 12, .	5.8	21
28	Beadâ€Based Extracellular Vesicle Analysis Using Flow Cytometry. Advanced Biology, 2020, 4, 2000203.	3.0	15
29	Plasmonic Sensors for Extracellular Vesicle Analysis: From Scientific Development to Translational Research. ACS Nano, 2020, 14, 14528-14548.	7.3	69
30	Plasmonâ€Enhanced Biosensing for Multiplexed Profiling of Extracellular Vesicles. Advanced Biology, 2020, 4, e2000003.	3.0	40
31	3D tracking of extracellular vesicles by holographic fluorescence imaging. Science Advances, 2020, 6, .	4.7	27
32	COVID-19 diagnostics in context. Science Translational Medicine, 2020, 12, .	5.8	305
33	Automated molecular-image cytometry and analysis in modern oncology. Nature Reviews Materials, 2020, 5, 409-422.	23.3	19
34	Integrated Dualâ€Mode Chromatography to Enrich Extracellular Vesicles from Plasma. Advanced Biology, 2020, 4, e1900310.	3.0	46
35	Compact and Filter-Free Luminescence Biosensor for Mobile in Vitro Diagnoses. ACS Nano, 2019, 13, 11698-11706.	7.3	22
36	Physical and Molecular Landscapes of Mouse Glioma Extracellular Vesicles Define Heterogeneity. Cell Reports, 2019, 27, 3972-3987.e6.	2.9	46

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37	Thermophoretically enriched detection. Nature Biomedical Engineering, 2019, 3, 163-164.	11.6	7
38	Methods for Systematic Identification of Membrane Proteins for Specific Capture of Cancer-Derived Extracellular Vesicles. Cell Reports, 2019, 27, 255-268.e6.	2.9	38
39	Membrane-bound Gaussia luciferase as a tool to track shedding of membrane proteins from the surface of extracellular vesicles. Scientific Reports, 2019, 9, 17387.	1.6	17
40	Point-of-care cervical cancer screening using deep learning-based microholography. Theranostics, 2019, 9, 8438-8447.	4.6	12
41	Characterization of single microvesicles in plasma from glioblastoma patients. Neuro-Oncology, 2019, 21, 606-615.	0.6	72
42	Bioassay for monitoring the anti-aging effect of cord blood treatment. Theranostics, 2019, 9, 1-10.	4.6	5
43	Multichannel digital heteronuclear magnetic resonance biosensor. Biosensors and Bioelectronics, 2019, 126, 240-248.	5.3	25
44	Immune evasion mediated by PD-L1 on glioblastoma-derived extracellular vesicles. Science Advances, 2018, 4, eaar2766.	4.7	416
45	New Technologies for Analysis of Extracellular Vesicles. Chemical Reviews, 2018, 118, 1917-1950.	23.0	1,041
46	Multiplexed Profiling of Single Extracellular Vesicles. ACS Nano, 2018, 12, 494-503.	7.3	256
47	Intra-Cardiac Release of Extracellular Vesicles Shapes Inflammation Following Myocardial Infarction. Circulation Research, 2018, 123, 100-106.	2.0	181
48	Integrated Biosensor for Rapid and Point-of-Care Sepsis Diagnosis. ACS Nano, 2018, 12, 3378-3384.	7.3	122
49	Analyses of Intravesicular Exosomal Proteins Using a Nano-Plasmonic System. ACS Photonics, 2018, 5, 487-494.	3.2	55
50	Advances, challenges, and opportunities in extracellular RNA biology: insights from the NIH exRNA Strategic Workshop. JCI Insight, 2018, 3, .	2.3	41
51	Deep transfer learning-based hologram classification for molecular diagnostics. Scientific Reports, 2018, 8, 17003.	1.6	48
52	High-throughput intensity diffraction tomography with a computational microscope. Biomedical Optics Express, 2018, 9, 2130.	1.5	79
53	Design and clinical validation of a point-of-care device for the diagnosis of lymphoma via contrast-enhanced microholography and machine learning. Nature Biomedical Engineering, 2018, 2, 666-674.	11.6	55
54	Computational Optics Enables Breast Cancer Profiling in Point-of-Care Settings. ACS Nano, 2018, 12, 9081-9090.	7.3	26

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55	Point of care assessment of melanoma tumor signaling and metastatic burden from Î¼NMR analysis of tumor fine needle aspirates and peripheral blood. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 821-828.	1.7	9
56	Facile silicification of plastic surface for bioassays. Chemical Communications, 2017, 53, 2134-2137.	2.2	7
57	Real-time quantitative analysis of metabolic flux in live cells using a hyperpolarized micromagnetic resonance spectrometer. Science Advances, 2017, 3, e1700341.	4.7	47
58	MicroRNA Signatures and Molecular Subtypes of Glioblastoma: The Role of Extracellular Transfer. Stem Cell Reports, 2017, 8, 1497-1505.	2.3	58
59	Multiparametric plasma EV profiling facilitates diagnosis of pancreatic malignancy. Science Translational Medicine, 2017, 9, .	5.8	211
60	Integrated microHall magnetometer to measure the magnetic properties of nanoparticles. Lab on A Chip, 2017, 17, 4000-4007.	3.1	13
61	Integrated Kidney Exosome Analysis for the Detection of Kidney Transplant Rejection. ACS Nano, 2017, 11, 11041-11046.	7.3	106
62	Characterization of Extracellular Vesicles by Surface Plasmon Resonance. Methods in Molecular Biology, 2017, 1660, 133-141.	0.4	13
63	Novel nanosensing technologies for exosome detection and profiling. Lab on A Chip, 2017, 17, 2892-2898.	3.1	71
64	Integrated Magneto-Chemical Sensor For On-Site Food Allergen Detection. ACS Nano, 2017, 11, 10062-10069.	7.3	75
65	Nanomagnetic System for Rapid Diagnosis of Acute Infection. ACS Nano, 2017, 11, 11425-11432.	7.3	12
66	Facile Coating Strategy to Functionalize Inorganic Nanoparticles for Biosensing. Bioconjugate Chemistry, 2017, 28, 33-37.	1.8	13
67	Holographic Assessment of Lymphoma Tissue (HALT) for Global Oncology Field Applications. Theranostics, 2016, 6, 1603-1610.	4.6	12
68	Highly sensitive detection of protein biomarkers via nuclear magnetic resonance biosensor with magnetically engineered nanoferrite particles. International Journal of Nanomedicine, 2016, Volume 11, 5497-5503.	3.3	7
69	Bioorthogonal Radiopaque Hydrogel for Endoscopic Delivery and Universal Tissue Marking. Advanced Healthcare Materials, 2016, 5, 421-426.	3.9	17
70	Sparsity-Based Pixel Super Resolution for Lens-Free Digital In-line Holography. Scientific Reports, 2016, 6, 24681.	1.6	29
71	Design of a Microfluidic Chip for Magnetic-Activated Sorting of One-Bead-One-Compound Libraries. ACS Combinatorial Science, 2016, 18, 271-278.	3.8	8
72	Supramolecular Metalloâ€Bioadhesive for Minimally Invasive Use. Advanced Materials, 2016, 28, 8675-8680.	11.1	64

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73	Rapid identification of health careâ€“associated infections with an integrated fluorescence anisotropy system. Science Advances, 2016, 2, e1600300.	4.7	44
74	A magneto-DNA nanoparticle system for the rapid and sensitive diagnosis of enteric fever. Scientific Reports, 2016, 6, 32878.	1.6	11
75	Challenges influencing next generation technologies for precision medicine. Expert Review of Precision Medicine and Drug Development, 2016, 1, 121-123.	0.4	2
76	Integrated Magnetoâ€“Electrochemical Sensor for Exosome Analysis. ACS Nano, 2016, 10, 1802-1809.	7.3	372
77	Reduced Proteolytic Shedding of Receptor Tyrosine Kinases Is a Post-Translational Mechanism of Kinase Inhibitor Resistance. Cancer Discovery, 2016, 6, 382-399.	7.7	139
78	Digital diffraction detection of protein markers for avian influenza. Lab on A Chip, 2016, 16, 1340-1345.	3.1	11
79	Fluorescence Polarization Based Nucleic Acid Testing for Rapid and Costâ€Effective Diagnosis of Infectious Disease. Chemistry - A European Journal, 2015, 21, 16359-16363.	1.7	16
80	On Chip Analysis of CNS Lymphoma in Cerebrospinal Fluid. Theranostics, 2015, 5, 796-804.	4.6	12
81	Nano-plasmonic exosome diagnostics. Expert Review of Molecular Diagnostics, 2015, 15, 725-733.	1.5	44
82	Exploring alternative ovarian cancer biomarkers using innovative nanotechnology strategies. Cancer and Metastasis Reviews, 2015, 34, 75-82.	2.7	8
83	Acoustic Purification of Extracellular Microvesicles. ACS Nano, 2015, 9, 2321-2327.	7.3	413
84	Genome-wide CRISPR Screen in a Mouse Model of Tumor Growth and Metastasis. Cell, 2015, 160, 1246-1260.	13.5	746
85	Nanostar Clustering Improves the Sensitivity of Plasmonic Assays. Bioconjugate Chemistry, 2015, 26, 1470-1474.	1.8	28
86	Single-cell magnetic imaging using a quantum diamond microscope. Nature Methods, 2015, 12, 736-738.	9.0	161
87	Chip-based analysis of exosomal mRNA mediating drug resistance in glioblastoma. Nature Communications, 2015, 6, 6999.	5.8	484
88	Digital diffraction analysis enables low-cost molecular diagnostics on a smartphone. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5613-5618.	3.3	80
89	Recent Developments in Magnetic Diagnostic Systems. Chemical Reviews, 2015, 115, 10690-10724.	23.0	239
90	Nanoparticle Detection of Urinary Markers for Point-of-Care Diagnosis of Kidney Injury. PLoS ONE, 2015, 10, e0133417.	1.1	29

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91	Miniaturized nuclear magnetic resonance platform for detection and profiling of circulating tumor cells. Lab on A Chip, 2014, 14, 14-23.	3.1	70
92	Label-free detection and molecular profiling of exosomes with a nano-plasmonic sensor. Nature Biotechnology, 2014, 32, 490-495.	9.4	1,060
93	Molecular characterization of scant lung tumor cells using iron-oxide nanoparticles and micro-nuclear magnetic resonance. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 661-668.	1.7	35
94	Magnetic Ligation Method for Quantitative Detection of MicroRNAs. Advanced Healthcare Materials, 2014, 3, 1015-1019.	3.9	4
95	Ultrasound-Mediated Gene and Drug Delivery Using a Microbubble-Liposome Particle System. Theranostics, 2014, 4, 1133-1144.	4.6	100
96	Nanoparticles for cancer imaging: The good, the bad, and the promise. Nano Today, 2013, 8, 454-460.	6.2	140
97	Magnetic Nanosensor for Detection and Profiling of Erythrocyte-Derived Microvesicles. ACS Nano, 2013, 7, 11227-11233.	7.3	96
98	Ascites analysis by a microfluidic chip allows tumor-cell profiling. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4978-86.	3.3	46
99	Î¼Hall Chip for Sensitive Detection of Bacteria. Advanced Healthcare Materials, 2013, 2, 1224-1228.	3.9	55
100	Rare cell isolation and profiling on a hybrid magnetic/size-sorting chip. Biomicrofluidics, 2013, 7, 54107.	1.2	46
101	Magnetic barcode assay for genetic detection of pathogens. Nature Communications, 2013, 4, 1752.	5.8	161
102	A magneto-DNA nanoparticle system for rapid detection and phenotyping of bacteria. Nature Nanotechnology, 2013, 8, 369-375.	15.6	307
103	Comparison of select cancer biomarkers in human circulating and bulk tumor cells using magnetic nanoparticles and a miniaturized micro-NMR system. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 1009-1017.	1.7	40
104	Dual Imaging and Photoactivated Nanoprobe for Controlled Cell Tracking. Small, 2013, 9, 222-227.	5.2	13
105	Oxidation Kinetics and Magnetic Properties of Elemental Iron Nanoparticles. Particle and Particle Systems Characterization, 2013, 30, 667-671.	1.2	16
106	Diagnostic Magnetic Resonance Technology. Biological and Medical Physics Series, 2013, , 197-222.	0.3	4
107	Protein typing of circulating microvesicles allows real-time monitoring of glioblastoma therapy. Nature Medicine, 2012, 18, 1835-1840.	15.2	647
108	Photocleavable DNA Barcodeâ€“Antibody Conjugates Allow Sensitive and Multiplexed Protein Analysis in Single Cells. Journal of the American Chemical Society, 2012, 134, 18499-18502.	6.6	93

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109	Sensitive and Direct Detection of Circulating Tumor Cells by Multimarker Âµ-Nuclear Magnetic Resonance. Neoplasia, 2012, 14, 388-IN2.	2.3	61
110	Orthogonal Amplification of Nanoparticles for Improved Diagnostic Sensing. ACS Nano, 2012, 6, 3506-3513.	7.3	46
111	Mechanism of Magnetic Relaxation Switching Sensing. ACS Nano, 2012, 6, 6821-6828.	7.3	115
112	Magnetic Nanoparticles and microNMR for Diagnostic Applications. Theranostics, 2012, 2, 55-65.	4.6	152
113	Microfluidic Cell Sorter (Î¼FCS) for Onâ€chip Capture and Analysis of Single Cells. Advanced Healthcare Materials, 2012, 1, 432-436.	3.9	43
114	A Magnetic Gram Stain for Bacterial Detection. Angewandte Chemie - International Edition, 2012, 51, 7752-7755.	7.2	65
115	Ultrasensitive Clinical Enumeration of Rare Cells ex Vivo Using a Micro-Hall Detector. Science Translational Medicine, 2012, 4, 141ra92.	5.8	211
116	Supramolecular Hostâ€“Guest Interaction for Labeling and Detection of Cellular Biomarkers. Angewandte Chemie - International Edition, 2012, 51, 450-454.	7.2	59
117	Miniature magnetic resonance system for point-of-care diagnostics. Lab on A Chip, 2011, 11, 2282.	3.1	124
118	Specific Pathogen Detection Using Bioorthogonal Chemistry and Diagnostic Magnetic Resonance. Bioconjugate Chemistry, 2011, 22, 2390-2394.	1.8	59
119	Palm NMR and 1-Chip NMR. IEEE Journal of Solid-State Circuits, 2011, 46, 342-352.	3.5	121
120	Ubiquitous Detection of Gram-Positive Bacteria with Bioorthogonal Magnetofluorescent Nanoparticles. ACS Nano, 2011, 5, 8834-8841.	7.3	127
121	Multiplexed Magnetic Labeling Amplification Using Oligonucleotide Hybridization. Advanced Materials, 2011, 23, H254-7.	11.1	21
122	Multicore Assemblies Potentiate Magnetic Properties of Biomagnetic Nanoparticles. Advanced Materials, 2011, 23, 4793-4797.	11.1	92
123	Highly Magnetic Coreâ€“Shell Nanoparticles with a Unique Magnetization Mechanism. Angewandte Chemie - International Edition, 2011, 50, 4663-4666.	7.2	126
124	Micro-NMR for Rapid Molecular Analysis of Human Tumor Samples. Science Translational Medicine, 2011, 3, 71ra16.	5.8	191
125	Carboxymethylated Polyvinyl Alcohol Stabilizes Doped Ferrofluids for Biological Applications. Advanced Materials, 2010, 22, 5168-5172.	11.1	59
126	Bioorthogonal chemistry amplifies nanoparticle binding and enhances the sensitivity of cell detection. Nature Nanotechnology, 2010, 5, 660-665.	15.6	319

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127	Magnetic nanoparticles for biomedical NMR-based diagnostics. Beilstein Journal of Nanotechnology, 2010, 1, 142-154.	1.5	87
128	Silicon RF NMR biomolecular sensor - review. , 2010, , .		1
129	Palm NMR and one-chip NMR. , 2010, , .		17
130	Ultrasensitive Detection of Bacteria Using Coreâ€“Shell Nanoparticles and an NMRâ€Filter System. Angewandte Chemie - International Edition, 2009, 48, 5657-5660.	7.2	179
131	Rapid detection and profiling of cancer cells in fine-needle aspirates. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12459-12464.	3.3	176
132	Chipâ€“NMR biosensor for detection and molecular analysis of cells. Nature Medicine, 2008, 14, 869-874.	15.2	561