

# Hee Chan Kim

## List of Publications by Year in descending order

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97  
papers

3,643  
citations

159585

30  
h-index

144013

57  
g-index

97  
all docs

97  
docs citations

97  
times ranked

4884  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonenzymatic Glucose Detection Using Mesoporous Platinum. <i>Analytical Chemistry</i> , 2003, 75, 3046-3049.	6.5	562
2	A rapid antimicrobial susceptibility test based on single-cell morphological analysis. <i>Science Translational Medicine</i> , 2014, 6, 267ra174.	12.4	246
3	Computer-Aided Diagnosis of Solid Breast Nodules: Use of an Artificial Neural Network Based on Multiple Sonographic Features. <i>IEEE Transactions on Medical Imaging</i> , 2004, 23, 1292-1300.	8.9	223
4	Ionic Strength-Controlled Virtual Area of Mesoporous Platinum Electrode. <i>Journal of the American Chemical Society</i> , 2004, 126, 4524-4525.	13.7	129
5	Recent advances in miniaturized microfluidic flow cytometry for clinical use. <i>Electrophoresis</i> , 2007, 28, 4511-4520.	2.4	128
6	Ionic Circuits Based on Polyelectrolyte Diodes on a Microchip. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 3830-3833.	13.8	121
7	Electrochemical analysis based on nanoporous structures. <i>Analyst, The</i> , 2012, 137, 3891.	3.5	106
8	Electrochemical Nanoneedle Biosensor Based on Multiwall Carbon Nanotube. <i>Analytical Chemistry</i> , 2006, 78, 617-620.	6.5	105
9	Near-Infrared Emitting Polymer Nanogels for Efficient Sentinel Lymph Node Mapping. <i>ACS Nano</i> , 2012, 6, 7820-7831.	14.6	84
10	Nonenzymatic continuous glucose monitoring in human whole blood using electrified nanoporous Pt. <i>Biosensors and Bioelectronics</i> , 2012, 31, 284-291.	10.1	81
11	Direct, rapid antimicrobial susceptibility test from positive blood cultures based on microscopic imaging analysis. <i>Scientific Reports</i> , 2017, 7, 1148.	3.3	80
12	Cytometry and Velocimetry on a Microfluidic Chip Using Polyelectrolytic Salt Bridges. <i>Analytical Chemistry</i> , 2005, 77, 2490-2495.	6.5	73
13	Measurement of Shoulder Range of Motion in Patients with Adhesive Capsulitis Using a Kinect. <i>PLoS ONE</i> , 2015, 10, e0129398.	2.5	69
14	A label-free DC impedance-based microcytometer for circulating rare cancer cell counting. <i>Lab on A Chip</i> , 2013, 13, 970.	6.0	61
15	pH-Sensitive Solid-State Electrode Based on Electrodeposited Nanoporous Platinum. <i>Analytical Chemistry</i> , 2005, 77, 7695-7701.	6.5	59
16	A portable microfluidic flow cytometer based on simultaneous detection of impedance and fluorescence. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1509-1515.	10.1	55
17	Integration of a Nanoporous Platinum Thin Film into a Microfluidic System for Non-enzymatic Electrochemical Glucose Sensing. <i>Analytical Sciences</i> , 2007, 23, 277-281.	1.6	51
18	Selective preconcentration and online collection of charged molecules using ion concentration polarization. <i>RSC Advances</i> , 2015, 5, 66178-66184.	3.6	50

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19	Evaluation of the novel near-infrared fluorescence tracers pullulan polymer nanogel and indocyanine green/ $\beta$ -glutamic acid complex for sentinel lymph node navigation surgery in large animal models. <i>Gastric Cancer</i> , 2015, 18, 55-64.	5.3	50
20	dCas9-mediated Nanoelectrokinetic Direct Detection of Target Gene for Liquid Biopsy. <i>Nano Letters</i> , 2018, 18, 7642-7650.	9.1	50
21	Three-Dimensional Interstitial Nanovoid of Nanoparticulate Pt Film Electroplated from Reverse Micelle Solution. <i>Chemistry of Materials</i> , 2007, 19, 3373-3375.	6.7	48
22	Evaluation of Surgical Skills during Robotic Surgery by Deep Learning-Based Multiple Surgical Instrument Tracking in Training and Actual Operations. <i>Journal of Clinical Medicine</i> , 2020, 9, 1964.	2.4	45
23	Disposable non-enzymatic blood glucose sensing strip based on nanoporous platinum particles. <i>Applied Materials Today</i> , 2018, 10, 24-29.	4.3	44
24	Three-Dimensional Electrospun Poly(Lactide-Co- $\epsilon$ -Caprolactone) for Small-Diameter Vascular Grafts. <i>Tissue Engineering - Part A</i> , 2012, 18, 1608-1616.	3.1	43
25	Nanoporous platinum solid-state reference electrode with layer-by-layer polyelectrolyte junction for pH sensing chip. <i>Lab on A Chip</i> , 2011, 11, 664-671.	6.0	42
26	Comparison of macular $\langle \text{GCIPL} \rangle$ and peripapillary $\langle \text{RNFL} \rangle$ deviation maps for detection of glaucomatous eye with localized $\langle \text{RNFL} \rangle$ defect. <i>Acta Ophthalmologica</i> , 2015, 93, e22-8.	1.1	35
27	Ultrafast active mixer using polyelectrolytic ion extractor. <i>Lab on A Chip</i> , 2008, 8, 764.	6.0	34
28	Ion Flow Crossing Over a Polyelectrolyte Diode on a Microfluidic Chip. <i>Small</i> , 2011, 7, 2629-2639.	10.0	34
29	Capsule preservation improves short-term outcome of hydraulic distension in painful stiff shoulder. <i>Journal of Orthopaedic Research</i> , 2011, 29, 1688-1694.	2.3	34
30	Application of a new Cl-plasma-treated Ag/AgCl reference electrode to micromachined glucose sensor. <i>IEEE Sensors Journal</i> , 2003, 3, 267-273.	4.7	32
31	Polyelectrolyte junction field effect transistor based on microfluidic chip. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	32
32	A miniaturized electrochemical system with a novel polyelectrolyte reference electrode and its application to thin layer electroanalysis. <i>Sensors and Actuators B: Chemical</i> , 2006, 115, 212-219.	7.8	31
33	Reproducible fabrication of miniaturized glucose sensors: preparation of sensing membranes for continuous monitoring. <i>Biosensors and Bioelectronics</i> , 2001, 16, 1079-1087.	10.1	30
34	Rapid drug susceptibility test of <i>Mycobacterium tuberculosis</i> using microscopic time-lapse imaging in an agarose matrix. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 2355-2365.	3.6	30
35	A wearable artificial kidney: technical requirements and potential solutions. <i>Expert Review of Medical Devices</i> , 2011, 8, 567-579.	2.8	29
36	Dynamic Preconcentration of Gold Nanoparticles for Surface-Enhanced Raman Scattering in a Microfluidic System. <i>Small</i> , 2012, 8, 378-383.	10.0	26

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37	A flow cytometry-based submicron-sized bacterial detection system using a movable virtual wall. <i>Lab on A Chip</i> , 2014, 14, 2327.	6.0	26
38	Influence of Propofol and Fentanyl on Deep Brain Stimulation of the Subthalamic Nucleus. <i>Journal of Korean Medical Science</i> , 2014, 29, 1278.	2.5	24
39	In vivo calibration of the subcutaneous amperometric glucose sensors using a non-enzyme electrode. <i>Biosensors and Bioelectronics</i> , 2003, 19, 313-319.	10.1	23
40	Effects of Pulsatile Bioreactor Culture on Vascular Smooth Muscle Cells Seeded on Electrospun Poly (lactide-ε-caprolactone) Scaffold. <i>Artificial Organs</i> , 2013, 37, E168-78.	1.9	23
41	Red blood cell quantification microfluidic chip using polyelectrolytic gel electrodes. <i>Electrophoresis</i> , 2009, 30, 1464-1469.	2.4	22
42	Biosensors in Microfluidic Chips. <i>Topics in Current Chemistry</i> , 2011, 304, 117-152.	4.0	21
43	A rapid field-free electroosmotic micropump incorporating charged microchannel surfaces. <i>Sensors and Actuators B: Chemical</i> , 2007, 123, 1161-1168.	7.8	19
44	Ion bridges in microfluidic systems. <i>Microfluidics and Nanofluidics</i> , 2009, 6, 315-331.	2.2	19
45	Cation-selective electroconcentration. <i>Lab on A Chip</i> , 2014, 14, 1811-1815.	6.0	19
46	Intra-articular Pressure Profiles of Painful Stiff Shoulders Compared With Those of Other Conditions. <i>PM and R</i> , 2009, 1, 297-307.	1.6	18
47	SERS decoding of micro gold shells moving in microfluidic systems. <i>Electrophoresis</i> , 2010, 31, 1623-1629.	2.4	18
48	Manikin-Integrated Digital Measuring System for Assessment of Infant Cardiopulmonary Resuscitation Techniques. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2014, 18, 1659-1667.	6.3	18
49	The gap-prepulse inhibition deficit of the cortical N1-P2 complex in patients with tinnitus: The effect of gap duration. <i>Hearing Research</i> , 2017, 348, 120-128.	2.0	18
50	Apparent electrocatalysis on 3D nanoporous platinum film electroplated from hexagonal lyotropic liquid crystalline phase of Triton X-100. <i>Electrochimica Acta</i> , 2008, 53, 6143-6148.	5.2	17
51	Endoscopic Vision-Based Tracking of Multiple Surgical Instruments During Robot-Assisted Surgery. <i>Artificial Organs</i> , 2013, 37, 107-112.	1.9	17
52	Gap prepulse inhibition of the auditory late response in healthy subjects. <i>Psychophysiology</i> , 2015, 52, 1511-1519.	2.4	17
53	Preliminary study on application of augmented reality visualization in robotic thyroid surgery. <i>Annals of Surgical Treatment and Research</i> , 2018, 95, 297.	1.0	17
54	Nanoelectrokinetic Selective Preconcentration Based on Ion Concentration Polarization. <i>Biochip Journal</i> , 2020, 14, 100-109.	4.9	17

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55	Enhancement of Solute Removal in a Hollow-Fiber Hemodialyzer by Mechanical Vibration. <i>Blood Purification</i> , 2011, 31, 227-234.	1.8	16
56	Vision-based tracking system for augmented reality to localize recurrent laryngeal nerve during robotic thyroid surgery. <i>Scientific Reports</i> , 2020, 10, 8437.	3.3	16
57	Effects of Arterial Port Design on Blood Flow Distribution in Hemodialyzers. <i>Blood Purification</i> , 2009, 28, 260-267.	1.8	15
58	Development of a Cold Dialysate Regeneration System for Home Hemodialysis. <i>Blood Purification</i> , 2009, 28, 84-92.	1.8	15
59	Changes in Biomechanical Properties of Glenohumeral Joint Capsules With Adhesive Capsulitis by Repeated Capsuleâ€Preserving Hydraulic Distensions With Saline Solution and Corticosteroid. <i>PM and R</i> , 2012, 4, 976-984.	1.6	15
60	Application of high throughput cell array technology to FISH: Investigation of the role of deletion of p16 gene in leukemias. <i>Journal of Biotechnology</i> , 2007, 127, 355-360.	3.8	14
61	Evaluation of subchronic (13week) toxicity and genotoxicity potential of vinegar-processed Genkwa Flos. <i>Regulatory Toxicology and Pharmacology</i> , 2015, 72, 386-393.	2.7	14
62	Preliminary evaluation of the use of a CDMA-based emergency telemedicine system. <i>Journal of Telemedicine and Telecare</i> , 2006, 12, 422-427.	2.7	13
63	Dynamics of driftless preconcentration using ion concentration polarization leveraged by convection and diffusion. <i>Lab on A Chip</i> , 2019, 19, 3190-3199.	6.0	13
64	HSDPA (3.5G)-Based Ubiquitous Integrated Biotelemetry System for Emergency Care. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 3665-8.	0.5	12
65	Genotoxicity and subchronic toxicity of Sophorae radix in rats: Hepatotoxic and genotoxic potential. <i>Regulatory Toxicology and Pharmacology</i> , 2015, 71, 379-387.	2.7	12
66	Bilateral Deep Brain Stimulation of the Subthalamic Nucleus under Sedation with Propofol and Fentanyl. <i>PLoS ONE</i> , 2016, 11, e0152619.	2.5	12
67	Patterns of glaucoma progression in retinal nerve fiber and macular ganglion cell-inner plexiform layer in spectral-domain optical coherence tomography. <i>Japanese Journal of Ophthalmology</i> , 2017, 61, 324-333.	1.9	12
68	Estimating Maximal Oxygen Uptake From Daily Activity Data Measured by a Watch-Type Fitness Tracker: Cross-Sectional Study. <i>JMIR MHealth and UHealth</i> , 2019, 7, e13327.	3.7	12
69	Application of genetic algorithm for hemodialysis schedule optimization. <i>Computer Methods and Programs in Biomedicine</i> , 2017, 145, 35-43.	4.7	11
70	Electrokinetic concentration on a microfluidic chip using polyelectrolytic gel plugs for small molecule immunoassay. <i>Electrochimica Acta</i> , 2013, 110, 164-171.	5.2	10
71	Analysis of the Interventricular Pressure Waveform in the Moving-Actuator Total Artificial Heart. <i>ASAIO Journal</i> , 2000, 46, 749-755.	1.6	9
72	Combination of optic disc rim area and retinal nerve fiber layer thickness for early glaucoma detection by using spectral domain OCT. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 2013, 251, 2617-2625.	1.9	9

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73	Simulation of Oral Glucose Tolerance Tests and the Corresponding Isoglycemic Intravenous Glucose Infusion Studies for Calculation of the Incretin Effect. <i>Journal of Korean Medical Science</i> , 2014, 29, 378.	2.5	9
74	Nonfaradaic Nanoporous Electrochemistry for Conductometry at High Electrolyte Concentration. <i>Analytical Chemistry</i> , 2015, 87, 2443-2451.	6.5	9
75	Reproducibility of Spectral-Domain Optical Coherence Tomography RNFL Map for Glaucomatous and Fellow Normal Eyes in Unilateral Glaucoma. <i>Journal of Glaucoma</i> , 2015, 24, 238-244.	1.6	8
76	Electro-deposited Nanoporous Platinum Electrode for EEG Monitoring. <i>Journal of Korean Medical Science</i> , 2018, 33, e154.	2.5	8
77	Clinical outcome prediction from analysis of microelectrode recordings using deep learning in subthalamic deep brain stimulation for Parkinson's disease. <i>PLoS ONE</i> , 2021, 16, e0244133.	2.5	8
78	Comparative study of telecommunication methods for emergency telemedicine. <i>Journal of Telemedicine and Telecare</i> , 2003, 9, 300-303.	2.7	7
79	Computational Modeling of Effects of Mechanical Shaking on Hemodynamics in Hollow Fibers. <i>International Journal of Artificial Organs</i> , 2012, 35, 301-307.	1.4	7
80	Quantitative Assessment of Retinal Nerve Fiber Layer Defect Depth Using Spectral-Domain Optical Coherence Tomography. <i>Ophthalmology</i> , 2014, 121, 1333-1340.	5.2	6
81	Bio-Cell Chip Fabrication and Applications. <i>Methods in Molecular Biology</i> , 2009, 509, 145-158.	0.9	6
82	â€œWeighing Camâ€ A New Mobile Application for Weight Estimation in Pediatric Resuscitation. <i>Prehospital Emergency Care</i> , 2020, 24, 441-450.	1.8	5
83	Cardiac Output Regulation in the Moving Actuator Total Artificial Heart Without a Compliance Chamber. <i>ASAIO Journal</i> , 1992, 38, 846-850.	1.6	4
84	Preliminary Study of Motion Artifact Rejection for NIBP measurement in an Ambulance. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 705-8.	0.5	4
85	Quantification of Lumbar Stability During Wall Plankâ€andâ€Roll Activity Using Inertial Sensors. <i>PM and R</i> , 2015, 7, 803-813.	1.6	4
86	Effectiveness of finger-marker for maintaining the correct compression point during paediatric resuscitation: A simulation study. <i>American Journal of Emergency Medicine</i> , 2017, 35, 1303-1308.	1.6	4
87	An assessment of the accuracy of a novel weight estimation device for children. <i>Emergency Medicine Journal</i> , 2017, 34, 163-169.	1.0	4
88	Segmentation of Solid Nodules in Ultrasonographic Breast Image Based on Wavelet Transform. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 5650-3.	0.5	3
89	Lumbar Stability in Healthy Individuals and Low Back Pain Patients Quantified by Wall Plankâ€andâ€Roll Test. <i>PM and R</i> , 2019, 11, 483-494.	1.6	3
90	In-Silico Trials for Glucose Control in Hospitalized Patients with Type 2 Diabetes. <i>Journal of Korean Medical Science</i> , 2016, 31, 231.	2.5	2

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91	Calculation of the clearance requirements for the development of a hemodialysis-based wearable artificial kidney. <i>Hemodialysis International</i> , 2016, 20, 226-234.	0.9	2
92	Unobtrusive Estimation of Cardiorespiratory Fitness with Daily Activity in Healthy Young Men. <i>Journal of Korean Medical Science</i> , 2017, 32, 1947.	2.5	2
93	Objective Evaluation of Cervical Dystonia Using an Inertial Sensor-Based System. <i>Journal of Medical and Biological Engineering</i> , 2019, 39, 305-314.	1.8	2
94	Effect of age on the gap-prepulse inhibition of the cortical N1-P2 complex in humans as a step towards an objective measure of tinnitus. <i>PLoS ONE</i> , 2020, 15, e0241136.	2.5	1
95	Microfluidic chip based hematoanalyzer using polyelectrolytic gel electrodes. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
96	Correlation between depth and area of retinal nerve fiber layer defect as measured by spectral domain optical coherence tomography. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 2015, 253, 925-934.	1.9	0
97	Augmented Reality-Based Visual Cue for Guiding Central Catheter Insertion in Pediatric Oncologic Patients. <i>World Journal of Surgery</i> , 2022, 46, 942-948.	1.6	0