

# Hiang Kwee Lee

## List of Publications by Year in descending order

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62  
papers

5,982  
citations

126907

33  
h-index

110387

64  
g-index

67  
all docs

67  
docs citations

67  
times ranked

7381  
citing authors

#	ARTICLE	IF	CITATIONS
1	Present and Future of Surface-Enhanced Raman Scattering. ACS Nano, 2020, 14, 28-117.	14.6	2,153
2	Designing surface-enhanced Raman scattering (SERS) platforms beyond hotspot engineering: emerging opportunities in analyte manipulations and hybrid materials. Chemical Society Reviews, 2019, 48, 731-756.	38.1	468
3	Favoring the unfavored: Selective electrochemical nitrogen fixation using a reticular chemistry approach. Science Advances, 2018, 4, eaar3208.	10.3	333
4	One-step synthesis of zero-dimensional hollow nanoporous gold nanoparticles with enhanced methanol electrooxidation performance. Nature Communications, 2014, 5, 4947.	12.8	218
5	Encoding molecular information in plasmonic nanostructures for anti-counterfeiting applications. Nanoscale, 2014, 6, 282-288.	5.6	169
6	Ultralight and fire-extinguishing current collectors for high-energy and high-safety lithium-ion batteries. Nature Energy, 2020, 5, 786-793.	39.5	168
7	Surfactant-Directed Atomic to Mesoscale Alignment: Metal Nanocrystals Encased Individually in Single-Crystalline Porous Nanostructures. Journal of the American Chemical Society, 2014, 136, 10561-10564.	13.7	157
8	Nanoscale surface chemistry directs the tunable assembly of silver octahedra into three two-dimensional plasmonic superlattices. Nature Communications, 2015, 6, 6990.	12.8	137
9	ZIF-induced Band Modification in a Bimetallic Nanocatalyst: Achieving Over 44% Efficiency in the Ambient Nitrogen Reduction Reaction. Angewandte Chemie - International Edition, 2020, 59, 16997-17003.	13.8	116
10	Superhydrophobic Surface-Enhanced Raman Scattering Platform Fabricated by Assembly of Ag Nanocubes for Trace Molecular Sensing. ACS Applied Materials & Interfaces, 2013, 5, 11409-11418.	8.0	110
11	Plasmonic nose: integrating the MOF-enabled molecular preconcentration effect with a plasmonic array for recognition of molecular-level volatile organic compounds. Chemical Communications, 2018, 54, 2546-2549.	4.1	104
12	Plasmonic Colloidosomes as Three-Dimensional SERS Platforms with Enhanced Surface Area for Multiphase Sub-Microliter Toxin Sensing. Angewandte Chemie - International Edition, 2015, 54, 9691-9695.	13.8	93
13	Graphene Liquid Marbles as Photothermal Miniature Reactors for Reaction Kinetics Modulation. Angewandte Chemie - International Edition, 2015, 54, 3993-3996.	13.8	93
14	Tracking Airborne Molecules from Afar: Three-Dimensional Metal-Organic Framework-Surface-Enhanced Raman Scattering Platform for Stand-Off and Real-Time Atmospheric Monitoring. ACS Nano, 2019, 13, 12090-12099.	14.6	87
15	Multiplex Surface-Enhanced Raman Scattering Identification and Quantification of Urine Metabolites in Patient Samples within 30 min. ACS Nano, 2020, 14, 2542-2552.	14.6	87
16	Intensifying Heat Using MOF-Isolated Graphene for Solar-Driven Seawater Desalination at 98% Solar-to-Thermal Efficiency. Advanced Functional Materials, 2021, 31, 2008904.	14.9	87
17	Plasmonic Liquid Marbles: A Miniature Substrateless SERS Platform for Quantitative and Multiplex Ultratrace Molecular Detection. Angewandte Chemie - International Edition, 2014, 53, 5054-5058.	13.8	86
18	Catalytic liquid marbles: Ag nanowire-based miniature reactors for highly efficient degradation of methylene blue. Chemical Communications, 2014, 50, 5923-5926.	4.1	72

#	ARTICLE	IF	CITATIONS
19	Noninvasive and Point-of-Care Surface-Enhanced Raman Scattering (SERS)-Based Breathalyzer for Mass Screening of Coronavirus Disease 2019 (COVID-19) under 5 min. <i>ACS Nano</i> , 2022, 16, 2629-2639.	14.6	71
20	Superhydrophobic-Oleophobic Ag Nanowire Platform: An Analyte-Concentrating and Quantitative Aqueous and Organic Toxin Surface-Enhanced Raman Scattering Sensor. <i>Analytical Chemistry</i> , 2014, 86, 10437-10444.	6.5	69
21	Scalable synthesis of nanoporous silicon microparticles for highly cyclable lithium-ion batteries. <i>Nano Research</i> , 2020, 13, 1558-1563.	10.4	65
22	SERS- and Electrochemically Active 3D Plasmonic Liquid Marbles for Molecular-Level Spectroelectrochemical Investigation of Microliter Reactions. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8813-8817.	13.8	57
23	Driving CO <sub>2</sub> to a Quasi-Condensed Phase at the Interface between a Nanoparticle Surface and a Metal-Organic Framework at 1 bar and 298 K. <i>Journal of the American Chemical Society</i> , 2017, 139, 11513-11518.	13.7	55
24	Manipulating the d-Band Electronic Structure of Platinum-Functionalized Nanoporous Gold Bowls: Synergistic Intermetallic Interactions Enhance Catalysis. <i>Chemistry of Materials</i> , 2016, 28, 5080-5086.	6.7	49
25	Creating two self-assembly micro-environments to achieve supercrystals with dual structures using polyhedral nanoparticles. <i>Nature Communications</i> , 2018, 9, 2769.	12.8	46
26	A large-scale superhydrophobic surface-enhanced Raman scattering (SERS) platform fabricated via capillary force lithography and assembly of Ag nanocubes for ultratrace molecular sensing. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 26983-26990.	2.8	45
27	Concentrating Immiscible Molecules at Solid@MOF Interfacial Nanocavities to Drive an Inert Gas-Liquid Reaction at Ambient Conditions. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 17058-17062.	13.8	43
28	Direct Metal Writing and Precise Positioning of Gold Nanoparticles within Microfluidic Channels for SERS Sensing of Gaseous Analytes. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 39584-39593.	8.0	42
29	Plasmonic Hotspots in Air: An Omnidirectional Three-Dimensional Platform for Stand-Off In-Air SERS Sensing of Airborne Species. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5792-5796.	13.8	41
30	Electrolyte-Resistant Dual Materials for the Synergistic Safety Enhancement of Lithium-Ion Batteries. <i>Nano Letters</i> , 2021, 21, 2074-2080.	9.1	37
31	Nanoporous Gold Bowls: A Kinetic Approach to Control Open Shell Structures and Size-Tunable Lattice Strain for Electrocatalytic Applications. <i>Small</i> , 2016, 12, 4531-4540.	10.0	36
32	Online Flowing Colloidosomes for Sequential Multi-Analyte High-Throughput SERS Analysis. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5565-5569.	13.8	35
33	Turning Water from a Hindrance to the Promotor of Preferential Electrochemical Nitrogen Reduction. <i>Chemistry of Materials</i> , 2020, 32, 1674-1683.	6.7	35
34	Microchemical Plant in a Liquid Droplet: Plasmonic Liquid Marble for Sequential Reactions and Attomole Detection of Toxin at Microliter Scale. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 39635-39640.	8.0	34
35	Spinning Liquid Marble and Its Dual Applications as Microcentrifuge and Miniature Localized Viscometer. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 23941-23946.	8.0	33
36	Zn-Induced d-Band Modification in a Bimetallic Nanocatalyst: Achieving Over 44% Efficiency in the Ambient Nitrogen Reduction Reaction. <i>Angewandte Chemie</i> , 2020, 132, 17145-17151.	2.0	31

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37	Identifying Enclosed Chemical Reaction and Dynamics at the Molecular Level Using Shell-Isolated Miniaturized Plasmonic Liquid Marble. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1501-1506.	4.6	30
38	Incorporating the Nanoscale Encapsulation Concept from Liquid Electrolytes into Solid-State Lithium-Sulfur Batteries. <i>Nano Letters</i> , 2020, 20, 5496-5503.	9.1	30
39	Transformative Two-Dimensional Array Configurations by Geometrical Shape-Shifting Protein Microstructures. <i>ACS Nano</i> , 2015, 9, 9708-9717.	14.6	28
40	Applying a Nanoparticle@MOF Interface To Activate an Unconventional Regioselectivity of an Inert Reaction at Ambient Conditions. <i>Journal of the American Chemical Society</i> , 2020, 142, 11521-11527.	13.7	26
41	Dynamic Rotating Liquid Marble for Directional and Enhanced Mass Transportation in Three-Dimensional Microliter Droplets. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 243-249.	4.6	22
42	Isolating Reactions at the Picoliter Scale: Parallel Control of Reaction Kinetics at the Liquid-Liquid Interface. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8304-8308.	13.8	20
43	Shape-dependent thermo-plasmonic effect of nanoporous gold at the nanoscale for ultrasensitive heat-mediated remote actuation. <i>Nanoscale</i> , 2018, 10, 16005-16012.	5.6	19
44	SERS- and Electrochemically Active 3D Plasmonic Liquid Marbles for Molecular-Level Spectroelectrochemical Investigation of Microliter Reactions. <i>Angewandte Chemie</i> , 2017, 129, 8939-8943.	2.0	16
45	Designing a Nanoscale Three-phase Electrochemical Pathway to Promote Pt-catalyzed Formaldehyde Oxidation. <i>Nano Letters</i> , 2020, 20, 8719-8724.	9.1	15
46	Bifunctional Asymmetric Fabric with Tailored Thermal Conduction and Radiation for Personal Cooling and Warming. <i>Engineering</i> , 2022, 10, 167-173.	6.7	15
47	Promotion of the halide effect in the formation of shaped metal nanocrystals via a hybrid cationic, polymeric stabilizer: Octahedra, cubes, and anisotropic growth. <i>Surface Science</i> , 2016, 648, 307-312.	1.9	13
48	Constructing Soft Substrate-less Platforms Using Particle-Assembled Fluid-Fluid Interfaces and Their Prospects in Multiphasic Applications. <i>Chemistry of Materials</i> , 2017, 29, 6563-6577.	6.7	11
49	Enriching surface-enhanced Raman spectral signatures in combined static and plasmonic electrical fields in self-powered substrates. <i>Nano Energy</i> , 2022, 92, 106737.	16.0	11
50	In Situ Differentiation of Multiplex Noncovalent Interactions Using SERS and Chemometrics. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 33421-33427.	8.0	10
51	Online Flowing Colloidosomes for Sequential Multi-analyte High-Throughput SERS Analysis. <i>Angewandte Chemie</i> , 2017, 129, 5657-5661.	2.0	7
52	Concentrating Immiscible Molecules at Solid@MOF Interfacial Nanocavities to Drive an Inert Gas-Liquid Reaction at Ambient Conditions. <i>Angewandte Chemie</i> , 2018, 130, 17304-17308.	2.0	7
53	Modulating Orientational Order to Organize Polyhedral Nanoparticles into Plastic Crystals and Uniform Metacrystals. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21183-21189.	13.8	7
54	Assembling substrate-less plasmonic metacrystals at the oil/water interface for multiplex ultratrace analyte detection. <i>Analyst</i> , 2016, 141, 5107-5112.	3.5	6

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55	Plasmonic Hotspots in Air: An Omnidirectional Three-Dimensional Platform for Stand-Off In-Air SERS Sensing of Airborne Species. <i>Angewandte Chemie</i> , 2018, 130, 5894-5898.	2.0	5
56	Cold-Starting All-Solid-State Batteries from Room Temperature by Thermally Modulated Current Collector in Sub-Minute. <i>Advanced Materials</i> , 2022, 34, .	21.0	5
57	Isolating Reactions at the Picoliter Scale: Parallel Control of Reaction Kinetics at the Liquid-Liquid Interface. <i>Angewandte Chemie</i> , 2016, 128, 8444-8448.	2.0	4
58	Spray-On Carbon Black Nanopowder/Polyvinylidene Fluoride-Based Solar-Thermal-Electric Generators to Power Electronic Devices. <i>ACS Applied Nano Materials</i> , 2022, 5, 2429-2435.	5.0	4
59	Modulating Orientational Order to Organize Polyhedral Nanoparticles into Plastic Crystals and Uniform Metacrystals. <i>Angewandte Chemie</i> , 2020, 132, 21369-21375.	2.0	3
60	Sensitive, portable heavy-metal-ion detection by the sulfidation method on a superhydrophobic concentrator (SPOT). <i>One Earth</i> , 2021, 4, 756-766.	6.8	2
61	Applying Magnetic-Responsive Nanocatalyst-Liquid Interface for Active Molecule Manipulation to Boost Catalysis Beyond Diffusion Limit. <i>ChemCatChem</i> , 2022, 14, .	3.7	2
62	An Archetype of The Electrons-Unobstructed Core-Shell Composite with Inherent Selectivity: Conductive Metal-Organic Frameworks Encapsulated with Metal Nanoparticles. <i>Nanoscale</i> , 0, , .	5.6	1