

Byung Hyo Kim

List of Publications by Year in descending order

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51
papers

4,971
citations

236612

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times ranked

8983
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Insights into Multi-Metal Spinel Oxide Nanoparticles for Boosting Oxygen Reduction Electrocatalysis. <i>Advanced Materials</i> , 2022, 34, e2107868.	11.1	30
2	In Situ Liquid Phase TEM of Nanoparticle Formation and Diffusion in a Phase-Separated Medium. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 22810-22817.	4.0	4
3	Preparation of conductive Si/C/N/Ni ceramic nanocomposites using phenyl-substituted polysilazane and nickelocene as precursors. <i>Ceramics International</i> , 2022, 48, 16576-16583.	2.3	5
4	Structural Insights into Multi-Metal Spinel Oxide Nanoparticles for Boosting Oxygen Reduction Electrocatalysis (<i>Adv. Mater.</i> 8/2022). <i>Advanced Materials</i> , 2022, 34, .	11.1	0
5	3-Dimensional Scanning of Entire Unit Cells in Single Nanoparticles.. <i>ChemNanoMat</i> , 2022, 8, .	1.5	0
6	Coalescence dynamics of platinum group metal nanoparticles revealed by liquid-phase transmission electron microscopy. <i>IScience</i> , 2022, 25, 104699.	1.9	1
7	Synthesis of CsPbX ₃ (X = Cl/Br, Br, and Br/I)@SiO ₂ /PMMA composite films as color-conversion materials for achieving tunable multi-color and white light emission. <i>Nano Research</i> , 2021, 14, 1187-1194.	5.8	40
8	Determination of the 3D Atomic Structures of Nanoparticles. <i>Small Science</i> , 2021, 1, 2000045.	5.8	12
9	SINGLE: Atomic-resolution structure identification of nanocrystals by graphene liquid cell EM. <i>Science Advances</i> , 2021, 7, .	4.7	13
10	Correlating 3D Surface Atomic Structure and Catalytic Activities of Pt Nanocrystals. <i>Nano Letters</i> , 2021, 21, 1175-1183.	4.5	20
11	Role of the Precursor Composition in the Synthesis of Metal Ferrite Nanoparticles. <i>Inorganic Chemistry</i> , 2021, 60, 4261-4268.	1.9	13
12	To inorganic nanoparticles via nanoclusters: Nonclassical nucleation and growth pathway. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 1386-1399.	1.0	5
13	Graphene Oxide-Supported Microwell Grids for Preparing Cryo-EM Samples with Controlled Ice Thickness. <i>Advanced Materials</i> , 2021, 33, e2102991.	11.1	1
14	Real-space imaging of nanoparticle transport and interaction dynamics by graphene liquid cell TEM. <i>Science Advances</i> , 2021, 7, eabi5419.	4.7	13
15	Ligand-Dependent Coalescence Behaviors of Gold Nanoparticles Studied by Multichamber Graphene Liquid Cell Transmission Electron Microscopy. <i>Nano Letters</i> , 2020, 20, 8704-8710.	4.5	15
16	A Large-Scale Array of Ordered Graphene-Sandwiched Chambers for Quantitative Liquid-Phase Transmission Electron Microscopy. <i>Advanced Materials</i> , 2020, 32, e2002889.	11.1	19
17	Unraveling the mystery of ultrafine bubbles: Establishment of thermodynamic equilibrium for sub-micron bubbles and its implications. <i>Journal of Colloid and Interface Science</i> , 2020, 570, 173-181.	5.0	12
18	Zinc Oxo Clusters Improve the Optoelectronic Properties on Indium Phosphide Quantum Dots. <i>Chemistry of Materials</i> , 2020, 32, 2795-2802.	3.2	20

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19	Critical differences in 3D atomic structure of individual ligand-protected nanocrystals in solution. <i>Science</i> , 2020, 368, 60-67.	6.0	103
20	Redox-Sensitive Facet Dependency in Etching of Ceria Nanocrystals Directly Observed by Liquid Cell TEM. <i>Journal of the American Chemical Society</i> , 2019, 141, 18395-18399.	6.6	27
21	Self-Assembled Nanochamber Arrays for in-situ TEM Observation of Liquid-Phase Samples. , 2019, , .		1
22	Rational design and observation of the tight interface between graphene and ligand protected nanocrystals. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 329-335.	1.3	2
23	Molecular-Level Understanding of Continuous Growth from Iron-Oxo Clusters to Iron Oxide Nanoparticles. <i>Journal of the American Chemical Society</i> , 2019, 141, 7037-7045.	6.6	58
24	Amorphous-Phase-Mediated Crystallization of Ni Nanocrystals Revealed by High-Resolution Liquid-Phase Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2019, 141, 763-768.	6.6	76
25	Synthesis of spherical and cubic magnetic iron oxide nanocrystals at low temperature in air. <i>Journal of Colloid and Interface Science</i> , 2018, 518, 27-33.	5.0	11
26	High Mobility in Nanocrystal-Based Transparent Conducting Oxide Thin Films. <i>ACS Nano</i> , 2018, 12, 3200-3208.	7.3	55
27	Liquid Cell TEM and Automated Image Analysis for Nanoparticle Growth Study. <i>Microscopy and Microanalysis</i> , 2018, 24, 1680-1681.	0.2	1
28	Metal Oxide Nanoparticles: Large-Scale Synthesis and Medical Applications of Uniform-Sized Metal Oxide Nanoparticles (<i>Adv. Mater.</i> 42/2018). <i>Advanced Materials</i> , 2018, 30, 1870319.	11.1	4
29	Liquid-Phase Transmission Electron Microscopy for Studying Colloidal Inorganic Nanoparticles. <i>Advanced Materials</i> , 2018, 30, 1703316.	11.1	77
30	Liquid Cell Electron Microscopy of Nanoparticle Self-Assembly Driven by Solvent Drying. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 647-654.	2.1	41
31	Iron oxide nanoclusters for T1 magnetic resonance imaging of non-human primates. <i>Nature Biomedical Engineering</i> , 2017, 1, 637-643.	11.6	151
32	Liquid-cell Transmission Electron Microscopy for Tracking Self-assembly of Nanoparticles. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	3
33	Route to the Smallest Doped Semiconductor: Mn ²⁺ -Doped (CdSe) ₁₃ Clusters. <i>Journal of the American Chemical Society</i> , 2015, 137, 12776-12779.	6.6	91
34	Magnetically separable carbon nanocomposite catalysts for efficient nitroarene reduction and Suzuki reactions. <i>Applied Catalysis A: General</i> , 2014, 476, 133-139.	2.2	73
35	Synthesis, Characterization, and Application of Ultrasmall Nanoparticles. <i>Chemistry of Materials</i> , 2014, 26, 59-71.	3.2	347
36	Multifunctional Tumor pH-Sensitive Self-Assembled Nanoparticles for Bimodal Imaging and Treatment of Resistant Heterogeneous Tumors. <i>Journal of the American Chemical Society</i> , 2014, 136, 5647-5655.	6.6	452

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37	Size Characterization of Ultrasmall Silver Nanoparticles Using MALDI-TOF Mass Spectrometry. Bulletin of the Korean Chemical Society, 2014, 35, 961-964.	1.0	7
38	Sizing by Weighing: Characterizing Sizes of Ultrasmall-Sized Iron Oxide Nanocrystals Using MALDI-TOF Mass Spectrometry. Journal of the American Chemical Society, 2013, 135, 2407-2410.	6.6	57
39	Galvanic Replacement Reactions in Metal Oxide Nanocrystals. Science, 2013, 340, 964-968.	6.0	472
40	Large-Scale Synthesis of Ultra-Small-Sized Silver Nanoparticles. ChemPhysChem, 2012, 13, 2540-2543.	1.0	44
41	Multifunctional Fe ₃ O ₄ /TaO _x Core/Shell Nanoparticles for Simultaneous Magnetic Resonance Imaging and X-ray Computed Tomography. Journal of the American Chemical Society, 2012, 134, 10309-10312.	6.6	219
42	Designed synthesis and assembly of uniform-sized iron oxide nanoparticles for multifunctional medical applications. , 2011, , .		0
43	Multifunctional mesoporous silica nanocomposite nanoparticles for pH controlled drug release and dual modal imaging. Journal of Materials Chemistry, 2011, 21, 16869.	6.7	78
44	Transformation of hydrophobic iron oxide nanoparticles to hydrophilic and biocompatible maghemite nanocrystals for use as highly efficient MRI contrast agent. Journal of Materials Chemistry, 2011, 21, 11472.	6.7	49
45	Large-Scale Synthesis of Uniform and Extremely Small-Sized Iron Oxide Nanoparticles for High-Resolution T ₁ Magnetic Resonance Imaging Contrast Agents. Journal of the American Chemical Society, 2011, 133, 12624-12631.	6.6	835
46	Enhancement of neurite outgrowth in PC12 cells by iron oxide nanoparticles. Biomaterials, 2011, 32, 2871-2877.	5.7	111
47	Simple synthesis of Pd-Fe ₃ O ₄ heterodimer nanocrystals and their application as a magnetically recyclable catalyst for Suzuki cross-coupling reactions. Physical Chemistry Chemical Physics, 2011, 13, 2512.	1.3	126
48	Magnetosome-like ferrimagnetic iron oxide nanocubes for highly sensitive MRI of single cells and transplanted pancreatic islets. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2662-2667.	3.3	183
49	Synthesis of Uniform Ferrimagnetic Magnetite Nanocubes. Journal of the American Chemical Society, 2009, 131, 454-455.	6.6	434
50	Various-Shaped Uniform Mn ₃ O ₄ Nanocrystals Synthesized at Low Temperature in Air Atmosphere. Chemistry of Materials, 2009, 21, 2272-2279.	3.2	135
51	Ni/NiO Core/Shell Nanoparticles for Selective Binding and Magnetic Separation of Histidine-Tagged Proteins. Journal of the American Chemical Society, 2006, 128, 10658-10659.	6.6	425