

# Jong-Min Yuk

## List of Publications by Citations

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75  
papers

2,600  
citations

21  
h-index

50  
g-index

83  
ext. papers

3,103  
ext. citations

9.8  
avg, IF

5  
L-index

#	Paper	IF	Citations
75	High-resolution EM of colloidal nanocrystal growth using graphene liquid cells. <i>Science</i> , <b>2012</b> , 336, 61-4	33.3	829
74	Raman spectroscopy study of rotated double-layer graphene: misorientation-angle dependence of electronic structure. <i>Physical Review Letters</i> , <b>2012</b> , 108, 246103	7.4	427
73	Nanoparticle imaging. 3D structure of individual nanocrystals in solution by electron microscopy. <i>Science</i> , <b>2015</b> , 349, 290-5	33.3	183
72	Anisotropic lithiation onset in silicon nanoparticle anode revealed by in situ graphene liquid cell electron microscopy. <i>ACS Nano</i> , <b>2014</b> , 8, 7478-85	16.7	88
71	In situ atomic imaging of coalescence of Au nanoparticles on graphene: rotation and grain boundary migration. <i>Chemical Communications</i> , <b>2013</b> , 49, 11479-81	5.8	81
70	Freeze-Dried Sulfur-Graphene Oxide-Carbon Nanotube Nanocomposite for High Sulfur-Loading Lithium/Sulfur Cells. <i>Nano Letters</i> , <b>2017</b> , 17, 7086-7094	11.5	78
69	Sodium Ion Batteries: Pulverization-Tolerance and Capacity Recovery of Copper Sulfide for High-Performance Sodium Storage (Adv. Sci. 12/2019). <i>Advanced Science</i> , <b>2019</b> , 6, 1970074	13.6	78
68	Visualization of regulated nucleation and growth of lithium sulfides for high energy lithium sulfur batteries. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 3144-3155	35.4	64
67	Growth dynamics of solid electrolyte interphase layer on SnO <sub>2</sub> nanotubes realized by graphene liquid cell electron microscopy. <i>Nano Energy</i> , <b>2016</b> , 25, 154-160	17.1	58
66	Atomic visualization of a non-equilibrium sodiation pathway in copper sulfide. <i>Nature Communications</i> , <b>2018</b> , 9, 922	17.4	50
65	Graphene veils and sandwiches. <i>Nano Letters</i> , <b>2011</b> , 11, 3290-4	11.5	49
64	Heterojunction Based on Rh-Decorated WO <sub>3</sub> Nanorods for Morphological Change and Gas Sensor Application Using the Transition Effect. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 207-215	9.6	46
63	Real-Time Observation of Water-Soluble Mineral Precipitation in Aqueous Solution by In Situ High-Resolution Electron Microscopy. <i>ACS Nano</i> , <b>2016</b> , 10, 88-92	16.7	31
62	Surface-normal electro-optic spatial light modulator using graphene integrated on a high-contrast grating resonator. <i>Optics Express</i> , <b>2016</b> , 24, 26035-26043	3.3	30
61	Pulverization-Tolerance and Capacity Recovery of Copper Sulfide for High-Performance Sodium Storage. <i>Advanced Science</i> , <b>2019</b> , 6, 1900264	13.6	26
60	Extremely Stable Luminescent Crosslinked Perovskite Nanoparticles under Harsh Environments over 1.5 Years. <i>Advanced Materials</i> , <b>2021</b> , 33, e2005255	24	26
59	Observation of Surface Atoms during Platinum Nanocrystal Growth by Monomer Attachment. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 3200-3202	9.6	25

58	Efficient preparation of graphene liquid cell utilizing direct transfer with large-area well-stitched graphene. <i>Chemical Physics Letters</i> , <b>2016</b> , 650, 107-112	2.5	25
57	Morphological Evolution Induced through a Heterojunction of W-Decorated NiO Nanoigloos: Synergistic Effect on High-Performance Gas Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 7529-7538	9.5	23
56	Direct Realization of Complete Conversion and Agglomeration Dynamics of SnO Nanoparticles in Liquid Electrolyte. <i>ACS Omega</i> , <b>2017</b> , 2, 6329-6336	3.9	22
55	High-rate formation cycle of Co <sub>3</sub> O <sub>4</sub> nanoparticle for superior electrochemical performance in lithium-ion batteries. <i>Electrochimica Acta</i> , <b>2019</b> , 295, 7-13	6.7	21
54	An iron-doped NASICON type sodium ion battery cathode for enhanced sodium storage performance and its full cell applications. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 20436-20445	13	20
53	In Situ High-Resolution Transmission Electron Microscopy (TEM) Observation of Sn Nanoparticles on SnO <sub>2</sub> Nanotubes Under Lithiation. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1107-1115	0.5	18
52	Graphene Liquid Cell Electron Microscopy: Progress, Applications, and Perspectives. <i>ACS Nano</i> , <b>2021</b> , 15, 288-308	16.7	18
51	Formation mechanism of ZnSiO <sub>3</sub> nanoparticles embedded in an amorphous interfacial layer between a ZnO thin film and an n-Si (001) substrate due to thermal treatment. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 083520	2.5	17
50	Distinct handedness of spin wave across the compensation temperatures of ferrimagnets. <i>Nature Materials</i> , <b>2020</b> , 19, 980-985	27	16
49	Direct Visualization of Lithium Polysulfides and Their Suppression in Liquid Electrolyte. <i>Nano Letters</i> , <b>2020</b> , 20, 2080-2086	11.5	14
48	Direct fabrication of zero- and one-dimensional metal nanocrystals by thermally assisted electromigration. <i>ACS Nano</i> , <b>2010</b> , 4, 2999-3004	16.7	14
47	Graphene-Sealed Flow Cells for Transmission Electron Microscopy of Liquid Samples. <i>ACS Nano</i> , <b>2020</b> , 14, 9637-9643	16.7	13
46	Live Cell Electron Microscopy Using Graphene Veils. <i>Nano Letters</i> , <b>2020</b> , 20, 4708-4713	11.5	12
45	Initial formation mechanisms of the supersaturation region and the columnar structure in ZnO thin films grown on n-Si (001) substrates. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 031907	3.4	12
44	Graphene Liquid Cell Electron Microscopy of Initial Lithiation in CoO Nanoparticles. <i>ACS Omega</i> , <b>2019</b> , 4, 6784-6788	3.9	11
43	Formation mechanisms of metallic Zn nanodots by using ZnO thin films deposited on n-Si substrates. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 061901	3.4	11
42	Reducing Time to Discovery: Materials and Molecular Modeling, Imaging, Informatics, and Integration. <i>ACS Nano</i> , <b>2021</b> , 15, 3971-3995	16.7	11
41	Transformation mechanisms from metallic Zn nanocrystals to insulating ZnSiO <sub>3</sub> nanocrystals in a SiO <sub>2</sub> matrix due to thermal treatment. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 221910	3.4	10

40	Unveiling the Origin of Superior Electrochemical Performance in Polycrystalline Dense SnO <sub>2</sub> Nanospheres as Anodes for Lithium-ion Batteries. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 2004-2012	6.1	9
39	Strong stress-composition coupling in lithium alloy nanoparticles. <i>Nature Communications</i> , <b>2019</b> , 10, 3428	7.4	8
38	Nucleation, growth, and superlattice formation of nanocrystals observed in liquid cell transmission electron microscopy. <i>MRS Bulletin</i> , <b>2020</b> , 45, 713-726	3.2	8
37	Drastically increased electrical and thermal conductivities of Pt-infiltrated MXenes. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 10739-10746	13	8
36	Unravelling high volumetric capacity of Co <sub>3</sub> O <sub>4</sub> nanograin-interconnected secondary particles for lithium-ion battery anodes. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 6242-6251	13	8
35	Lithium Argyrodite Sulfide Electrolytes with High Ionic Conductivity and Air Stability for All-Solid-State Li-Ion Batteries. <i>ACS Energy Letters</i> , <b>2022</b> , 7, 171-179	20.1	8
34	Superstructural defects and superlattice domains in stacked graphene. <i>Carbon</i> , <b>2014</b> , 80, 755-761	10.4	7
33	Hollow Ag <sub>2</sub> S nanosphere formation via electron beam-assisted oxidative etching of Ag nanoparticles. <i>Chemical Communications</i> , <b>2017</b> , 53, 11122-11125	5.8	7
32	Cyclic tangential flow filtration system for isolation of extracellular vesicles. <i>APL Bioengineering</i> , <b>2021</b> , 5, 016103	6.6	7
31	Real-Time Observation of CaCO <sub>3</sub> Mineralization in Highly Supersaturated Graphene Liquid Cells. <i>ACS Omega</i> , <b>2020</b> , 5, 14619-14624	3.9	6
30	Evolution mechanisms of the surface morphology of grains in ZnO thin films grown on p-InP substrates due to thermal annealing. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 021904	3.4	6
29	Effect of nucleation density on the crystallinity of graphene grown from mobile hot-wire-assisted CVD. <i>2D Materials</i> , <b>2019</b> , 6, 011001	5.9	6
28	Electric-field control of field-free spin-orbit torque switching via laterally modulated Rashba effect in Pt/Co/AlO <sub>x</sub> structures. <i>Nature Communications</i> , <b>2021</b> , 12, 7111	17.4	6
27	Sequential Growth and Etching of Gold Nanocrystals Revealed by High-Resolution Liquid Electron Microscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2019</b> , 216, 1800949	1.6	5
26	Lithographically patterned well-type graphene liquid cells with rational designs. <i>Lab on A Chip</i> , <b>2020</b> , 20, 2796-2803	7.2	4
25	Atomic structural variations of [0 0 0 1]-tilt grain boundaries during ZnO grain growth occurred by thermal treatments. <i>Applied Surface Science</i> , <b>2011</b> , 257, 4817-4820	6.7	4
24	Liquid-Flowing Graphene Chip-Based High-Resolution Electron Microscopy. <i>Advanced Materials</i> , <b>2021</b> , 33, e2005468	24	4
23	Preparation of Graphene Liquid Cells for the Observation of Lithium-ion Battery Material. <i>Journal of Visualized Experiments</i> , <b>2019</b> ,	1.6	3

22	Functionalized Graphene as Cryo-EM Supporting Film. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 882-883	0.5	3
21	In Situ TEM Observation on the Agglomeration of Nanoparticles in the Interface of SnO <sub>2</sub> . <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 2054-2055	0.5	2
20	Effects of thermal annealing on the microstructural properties of the lower region in ZnO thin films grown on n-Si (001) substrates. <i>Journal of Materials Research</i> , <b>2008</b> , 23, 1082-1086	2.5	2
19	Effect of Thermal Annealing on the Formation of Preferential c-Axis Orientation and an Interfacial Layer for ZnO Thin Films Grown on an n-Si (001) Substrate. <i>Journal of the Korean Physical Society</i> , <b>2007</b> , 50, 608	0.6	2
18	Protein-induced metamorphosis of unilamellar lipid vesicles to multilamellar hybrid vesicles. <i>Journal of Controlled Release</i> , <b>2021</b> , 331, 187-197	11.7	2
17	Preferential growth of carbon nanotubes via the carbon volume diffusion channels in Fe <sub>3</sub> C nanoparticles. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 1884-1885	0.5	2
16	Machine learning assisted synthesis of lithium-ion batteries cathode materials. <i>Nano Energy</i> , <b>2022</b> , 98, 107214	17.1	2
15	Facile in situ Lithiation and Sodiation Observation in TEM Employing MF (M=Li, Na). <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 1860-1861	0.5	1
14	The Effect of Electron Beam Dosage in the Decomposition Behavior of Electrolytes Encapsulated Inside the Graphene Sheets Based on In Situ TEM Observation. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 2052-2053	0.5	1
13	Non-Equilibrium Sodiation Pathway of CuSbS. <i>ACS Nano</i> , <b>2021</b> ,	16.7	1
12	Spontaneous stepwise formation of polar-facet-dominant ZnO crystals for enhanced catalytic H <sub>2</sub> O <sub>2</sub> generation. <i>Applied Surface Science</i> , <b>2021</b> , 561, 150061	6.7	1
11	Enhanced self-assembly of block copolymers by surface modification of a guiding template. <i>Polymer Journal</i> , <b>2018</b> , 50, 221-229	2.7	0
10	Facile Fabrication of Graphene-Sealed Microwell Liquid Cell for Liquid Electron Microscopy. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 298-299	0.5	
9	Real Time Observation of Initial Conversion Reaction of Co <sub>3</sub> O <sub>4</sub> Nanoparticles Using Graphene Liquid Cell Electron Microscopy. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1968-1969	0.5	
8	The creation of sub-10 nm In(PO <sub>3</sub> ) <sub>3</sub> nanocrystals in an insulating matrix, and underlying formation mechanisms. <i>Nanotechnology</i> , <b>2009</b> , 20, 055703	3.4	
7	Formation mechanisms of ZnO amorphous layers due to thermal treatment of ZnO thin films grown on p-InP (100) substrates. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 083535	2.5	
6	One-step synthesis of Pt/a-CoO core/shell nanocomposites. <i>Applied Microscopy</i> , <b>2019</b> , 49, 12	1.1	
5	Annihilation Behavior of Planar Defects on Phosphorus-Doped Silicon at Low Temperatures. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2017</b> , 17, 3370-3374	1.3	

- 4 Hydrogen-Assisted Fast Growth of Large Graphene Grains by Recrystallization of Nanograins. *ACS Omega*, **2020**, 5, 31502-31507 3.9
- 3 Electron Microscopy: Liquid-Flowing Graphene Chip-Based High-Resolution Electron Microscopy (Adv. Mater. 2/2021). *Advanced Materials*, **2021**, 33, 2170014 24
- 2 In situ Transmission Electron Microscopy of Lithiation Dynamics in a SnCh Hollow Nanosphere. *Microscopy and Microanalysis*, **2018**, 24, 1944-1945 0.5
- 1 Perovskite Nanoparticles: Extremely Stable Luminescent Crosslinked Perovskite Nanoparticles under Harsh Environments over 1.5 Years (Adv. Mater. 3/2021). *Advanced Materials*, **2021**, 33, 2170017 24