

# Chiwoo Park

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

63

papers

1,590

citations

20

h-index

39

g-index

70

ext. papers

1,917

ext. citations

5.3

avg, IF

4.87

L-index

#	Paper	IF	Citations
63	Robust Gaussian process regression with a bias model. <i>Pattern Recognition</i> , <b>2021</b> , 108444	7.7	1
62	Short-term electric load forecasting for buildings using logistic mixture vector autoregressive model with curve registration. <i>Applied Energy</i> , <b>2021</b> , 282, 116249	10.7	10
61	A mixture of linear-linear regression models for a linear-circular regression. <i>Statistical Modelling</i> , <b>2021</b> , 21, 220-243	0.7	3
60	Dynamic Shape Modeling for Shape Changes. <i>Profiles in Operations Research</i> , <b>2021</b> , 215-239	1	
59	Segmentation. <i>Profiles in Operations Research</i> , <b>2021</b> , 35-74	1	
58	Location and Dispersion Analysis. <i>Profiles in Operations Research</i> , <b>2021</b> , 109-144	1	
57	Change Point Detection. <i>Profiles in Operations Research</i> , <b>2021</b> , 241-275	1	
56	Multi-Object Tracking Analysis. <i>Profiles in Operations Research</i> , <b>2021</b> , 277-321	1	
55	Autonomous experimentation systems for materials development: A community perspective. <i>Matter</i> , <b>2021</b> , 4, 2702-2726	12.7	26
54	Missing data imputation using mixture factor analysis for building electric load data. <i>Applied Energy</i> , <b>2021</b> , 304, 117655	10.7	1
53	Image Representation. <i>Profiles in Operations Research</i> , <b>2021</b> , 15-33	1	
52	State Space Modeling for Size Changes. <i>Profiles in Operations Research</i> , <b>2021</b> , 177-213	1	
51	Morphology Analysis. <i>Profiles in Operations Research</i> , <b>2021</b> , 75-108	1	
50	Complex Nanoparticle Diffusional Motion in Liquid-Cell Transmission Electron Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 14881-14890	3.8	8
49	Sparse filtered SIRT for electron tomography. <i>Pattern Recognition</i> , <b>2020</b> , 102, 107253	7.7	1
48	Dynamic Data-Driven Distribution Tracking of Nanoparticle Morphology. <i>Lecture Notes in Computer Science</i> , <b>2020</b> , 132-139	0.9	
47	A Spatiotemporal Framework for the Resilience of a Post-Disaster Waste Management System <b>2020</b> ,		1

46	Automating material image analysis for material discovery. <i>MRS Communications</i> , <b>2019</b> , 9, 545-555	2.7	15
45	Toward Quantitative Liquid Cell Electron Microscopy through Kinetic Control of Solution Chemistry. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 23-24	0.5	2
44	Block Copolymer Amphiphile Phase Diagrams by High-Throughput Transmission Electron Microscopy. <i>Macromolecules</i> , <b>2019</b> , 52, 5529-5537	5.5	17
43	Nanoscale Mapping of Nonuniform Heterogeneous Nucleation Kinetics Mediated by Surface Chemistry. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 13516-13524	16.4	17
42	Visualizing Platinum Supraparticle Formation with Liquid Cell Electron Microscopy and Correlative Investigation of Catalytic Activity. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 2026-2027	0.5	
41	Fast dynamic nonparametric distribution tracking in electron microscopic data. <i>Annals of Applied Statistics</i> , <b>2019</b> , 13,	2.1	3
40	Polymerization-Induced Self-Assembly of Micelles Observed by Liquid Cell Transmission Electron Microscopy. <i>ACS Central Science</i> , <b>2018</b> , 4, 543-547	16.8	59
39	Two-level structural sparsity regularization for identifying lattices and defects in noisy images. <i>Annals of Applied Statistics</i> , <b>2018</b> , 12,	2.1	3
38	Robust regression for image binarization under heavy noise and nonuniform background. <i>Pattern Recognition</i> , <b>2018</b> , 81, 224-239	7.7	25
37	Stochastic Modeling and Diagnosis of Leak Areas for Surface Assembly. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , <b>2018</b> , 140,	3.3	8
36	The role of electron irradiation history in liquid cell transmission electron microscopy. <i>Science Advances</i> , <b>2018</b> , 4, eaaq1202	14.3	34
35	Directional Statistics of Preferential Orientations of Two Shapes in Their Aggregate and Its Application to Nanoparticle Aggregation. <i>Technometrics</i> , <b>2018</b> , 60, 332-344	1.4	5
34	Tackling the Challenges of Dynamic Experiments Using Liquid-Cell Transmission Electron Microscopy. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 3-11	24.3	53
33	Quantitative Modeling of Kinetically Controlled Nanocrystal Synthesis with Liquid Cell Electron Microscopy. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 280-281	0.5	
32	Quantifying the Nucleation and Growth Kinetics of Electron Beam Nanochemistry with Liquid Cell Scanning Transmission Electron Microscopy. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 7727-7736	9.6	35
31	Simulation-guided regression approach for estimating the size distribution of nanoparticles with dynamic light scattering data. <i>IIE Transactions</i> , <b>2017</b> , 49, 70-83	3.3	6
30	Colloidal Covalent Organic Frameworks. <i>ACS Central Science</i> , <b>2017</b> , 3, 58-65	16.8	142
29	Directly Observing Micelle Fusion and Growth in Solution by Liquid-Cell Transmission Electron Microscopy. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 17140-17151	16.4	81

28 Imaging Dynamic Processes in Liquids: Application for Batteries **2016**, 680-681

27	The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. <i>Scientific Reports</i> , <b>2016</b> , 6, 34267	4.9	53
26	The Mechanisms for Preferential Attachment of Nanoparticles in Liquid Determined Using Liquid Cell Electron Microscopy, Machine Learning, and Molecular Dynamics. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 812-813	0.5	0
25	Understanding the Effect of Additives in Li-ion and Li-Sulfur Batteries by Operando ec- (S)TEM. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 22-23	0.5	5
24	Understanding the Role of Solvation Forces on the Preferential Attachment of Nanoparticles in Liquid. <i>ACS Nano</i> , <b>2016</b> , 10, 181-7	16.7	43
23	Gaining Control over Radiolytic Synthesis of Uniform Sub-3-nanometer Palladium Nanoparticles: Use of Aromatic Liquids in the Electron Microscope. <i>Langmuir</i> , <b>2016</b> , 32, 1468-77	4	41
22	The Determining Role of Solution Chemistry in Radiation-Induced Nanoparticles Synthesis in the STEM <b>2016</b> , 31-32		
21	Observation and quantification of nanoscale processes in lithium batteries by operando electrochemical (S)TEM. <i>Nano Letters</i> , <b>2015</b> , 15, 2168-73	11.5	216
20	Minimum Cost Multi-Way Data Association for Optimizing Multitarget Tracking of Interacting Objects. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2015</b> , 37, 611-24	13.3	44
19	Observing the Self-assembly of Metal-Organic Frameworks by In-Situ Liquid Cell TEM. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 2445-2446	0.5	2
18	Controlled Radiolytic Synthesis in the Fluid Stage. Towards Understanding the Effect of the Electron Beam in Liquids. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 2125-2126	0.5	
17	Observing the growth of metal-organic frameworks by in situ liquid cell transmission electron microscopy. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 7322-8	16.4	155
16	Direct observation of aggregative nanoparticle growth: kinetic modeling of the size distribution and growth rate. <i>Nano Letters</i> , <b>2014</b> , 14, 373-8	11.5	146
15	Probing the degradation mechanisms in electrolyte solutions for Li-ion batteries by in situ transmission electron microscopy. <i>Nano Letters</i> , <b>2014</b> , 14, 1293-9	11.5	119
14	Multimode Geometric-Profile Monitoring with Correlated Image Data and Its Application to Nanoparticle Self-Assembly Processes. <i>Journal of Quality Technology</i> , <b>2014</b> , 46, 216-233	1.4	15
13	Direct Observation of Aggregative Nanoparticle Growth: Kinetic Modeling of the Size Distribution and Growth Rate. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1612-1613	0.5	
12	In-Situ Liquid Transmission Electron Microscopy (TEM) for the analysis of Metal Organic Frameworks (MOFs). <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1614-1615	0.5	1
11	Direct Observation of Electrolyte Degradation Mechanisms in Li-Ion Batteries. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1624-1625	0.5	

10	Estimating Multiple Pathways of Object Growth Using Nonlongitudinal Image Data. <i>Technometrics</i> , <b>2014</b> , 56, 186-199	1.4	10
9	Segmentation, Inference and Classification of Partially Overlapping Nanoparticles. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , <b>2013</b> , 35, 669-81	13.3	71
8	Small Angle X-Ray Scattering Technique for the Particle Size Distribution of Nonporous Nanoparticles. <i>Journal of Nanoparticles</i> , <b>2013</b> , 2013, 1-11		28
7	A multistage, semi-automated procedure for analyzing the morphology of nanoparticles. <i>IIE Transactions</i> , <b>2012</b> , 44, 507-522		23
6	Aggressive Data Reduction for Damage Detection in Structural Health Monitoring. <i>Structural Health Monitoring</i> , <b>2010</b> , 9, 59-74	4.4	14
5	Nanoparticle shape evolution identified through multivariate statistics. <i>Journal of Physical Chemistry A</i> , <b>2010</b> , 114, 5596-600	2.8	10
4	A Computable Plug-In Estimator of Minimum Volume Sets for Novelty Detection. <i>Operations Research</i> , <b>2010</b> , 58, 1469-1480	2.3	26
3	Collaborative data reduction for energy efficient sensor networks <b>2008</b> ,		1
2	Dynamic Data-Driven Fault Diagnosis of Wind Turbine Systems. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 1197-1204	0.9	7
1	A Study on the Application of BPM Systems for Implementation of RosettaNet Based e-Logistics. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 697-706	0.9	1