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<b>Current</b>	<b>Stevens Institute of Technology, Hoboken, NJ</b> Department of Chemical Engineering & Materials Science	
	Assistant Professor	07/2018-Present
	Associate Department Chair for Graduate Studies	09/2023-Present
	Coordinator of Graduate Studies	01/2020-08/2023
<b>Education</b>	<b>Massachusetts Institute of Technology, Cambridge, MA</b> PhD, Department of Materials Science & Engineering (Advisor: Gerbrand Ceder)	02/2014
	<b>Korea University, Seoul, Korea</b> ME, Department of Materials Science & Engineering (Advisor: Sahn Nahm)	02/2007
	BE, Department of Materials Science & Engineering	02/2005
<b>Experience</b>	<b>Korea University, Seoul, Korea</b> Visiting Professor, Department of Materials Science & Engineering	02/2020-Present
	<b>Lawrence Berkeley National Laboratory, Berkeley, CA</b> Postdoctoral Fellow, Materials Sciences Division	10/2015-07/2018
	<b>Massachusetts Institute of Technology, Cambridge, MA</b> Postdoctoral Associate, Department of Materials Science & Engineering	12/2013-10/2015
<b>Awards</b>	<b>Early Career Research Program Award</b> Department of Energy, Office of Science, Basic Energy Sciences	2022
	<b>Doctoral New Investigator Award</b> American Chemical Society, Petroleum Research Fund	2021
<b>Research</b>	<b>Solid-State Chemistry and Electrochemistry for Energy Storage Materials</b> Lithium/Sodium/Potassium-ion battery Cathode Materials Oxide/Thiophosphate/Halide-Based Solid Electrolyte Materials Lithium Metal/Silicon Anodes	
	<b>Microstructural and Interfacial Characterization of All-Solid-State Batteries</b> Micro X-ray Computed Tomography Cryogenic Electron Microscopy	
	<b>Advanced Manufacturing for Next-Generation Batteries</b> Electrospraying of nanopowders, Electrospinning of nanofibers, Electropainting of nanosheets, and Electrowriting of nanostructures	

**Selected Publication** <https://scholar.google.com/citations?user=I7VUCawAAAAJ&hl=en>

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H.-A. Cha, S.-J. Ha, H.-J. Jang, B.-M. Ahn, Y. K. Moon, J.-H. Kim, J.-J. Choi, B.-D. Hahn, S.-H. Han, J. Lim, D.-C. Ahn, I. C. Jung, K.-H. Cho\*, D. K. Kim\*, J. C. Kim, C.-W. Ahn\*, Nanocrystalline composite layer realized by simple sintering without surface treatment, reducing hydrophilicity and increasing thermal conductivity, *Small Methods*, in press, (2023), 2300969

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Y. Yang, J. Han, M. DeVita, S. S. Lee, and J. C. Kim\*, Lithium and chlorine-rich preparation of mechanochemically activated antiperovskite composites for solid-state batteries, *Front. Chem.*, 8, (2020), 562549

J. C. Kim, D.-H. Kwon, J. Yang, H. Kim, S. H. Bo, L. Wu, H. Kim, D.-H. Seo, T. Shi, J. Wang, Y. Zhu, and G. Ceder\*, Direct observation of alternating octahedral and prismatic sodium layers in O3-type transition metal oxides, *Adv. Energy Mater.*, 10, (2020), 2001151

J. Han, J. S. Chae, J. C. Kim\*, and K. C. Roh\*, Facile preparation of composite electrodes for supercapacitors by CNT entrapment into carbon matrix derived from pitch at a softening point, *Carbon*, 163, (2020), 402-407

Y. Xiao, Y. Wang, S.-H. Bo, J. C. Kim, L. J. Miara, and G. Ceder\*, Understanding interface stability in solid-state batteries, *Nat. Rev. Mater.*, 5, (2019), 105-126

H. Kim, D.-H. Seo, M. Bianchini, R. J. Clément, H. Kim, J. C. Kim, W. S. Yoon, and G. Ceder\*, A new strategy for high voltage cathodes for K-ion batteries: stoichiometric KVPO<sub>4</sub>F, *Adv. Energy Mater.*, 8, (2018) 1801591

H. Kim<sup>†</sup>, J. C. Kim<sup>†</sup>, M. Bianchini<sup>†</sup>, D.-H. Seo, J. Rodriguez, and G. Ceder\*, Recent progress and perspective in electrode materials for K-ion batteries, *Adv. Energy Mater.*, 8, (2018) 1702384 († equal contribution)

P. Vassilaras, S. T. Dacek, H. Kim, T. T. Fister, S. Kim, G. Ceder, and J. C. Kim\*, O3-type layered oxide with a quaternary transition metal composition for Na-ion battery cathodes: NaTi<sub>0.25</sub>Fe<sub>0.25</sub>Co<sub>0.25</sub>Ni<sub>0.25</sub>O<sub>2</sub>, *J. Electrochem. Soc.*, 164, (2017) A3484

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- M. Moradi, J. C. Kim<sup>†</sup>, J. Qi<sup>†</sup>, K. Xu, X. Li, G. Ceder, and A. M. Belcher\*, A bio-facilitated synthetic route for nano-structured complex electrode materials, *Green Chem.*, 18, (2016) 2619 († equal contribution)
- Y. Wang, W. D. Richards, S. P. Ong, L. J. Miara, J. C. Kim, Y. Mo, and G. Ceder\*, Design principles for solid-state lithium superionic conductors, *Nat. Mater.*, 14, (2015) 1026
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- J. C. Kim, Y. H. Jeong, J. B. Lim, K. P. Hong, S. Nahm\*, H. J. Sun, and H. J. Lee, High capacitance metal-insulator-metal capacitors using amorphous  $Sm_2Ti_2O_7$  thin film, *J. Electrochem. Soc.*, 154, (2007) G220
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