

Hyung Kim

Professor at Carnegie Mellon University

Pittsburgh, PA, US

Hyung Kim's research area is theoretical and computational chemistry.

Biography

Hyung Kim's research area is theoretical and computational chemistry. By employing analytic theory and modern computational techniques, he studies molecular structure and dynamics in homogeneous (i.e., bulk solution) and heterogeneous (e.g., interface and nano-confinement) environments. His primary focus is on chemical reactions in environmentally benign green solvents, e.g., carbon capture in ionic liquids, and energy storage systems, e.g., supercapacitors. Another focus area is computational dielectric and IR spectroscopies of electrolytes, such as solutions of alkali metal ions in water and in other solvents, that have many important applications, such as rechargeable batteries.

Industry Expertise

Electrical/Electronic Manufacturing, Chemicals

Areas of Expertise

Chemical Reactions and Spectroscopy in Solution, Computer Simulations, Theoretical and Computational Chemistry, Equilibrium and Nonequilibrium Statistical Mechanics, Green Solvents, Supercapacitors , Multi-Domain Proteins

Education

State University of New York at Stony Brook

Ph.D. Physics

Seoul National University

M.S Physics

Seoul National University

B.S. Physics

Accomplishments

KIAS Scholar, School of Computational Sciences, Korea Institute for Advanced Study
2008-present

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