Richard received his BS and MS in Mechanical Engineering from Tufts University and his PhD in Applied Physics from Columbia University. During his doctoral studies, he worked on phase transitions in metal oxide nanoparticles. Richard won a postdoctoral fellowship at University of California, Berkeley/LBNL in the research group of Paul Alivisatos, working on nanoparticle synthesis, chemical transformations, and advanced property characterizations. In 2008 he joined the Materials Science Department in Cornell University where his group focuses on understanding the fundamental physics of nanomaterials and applying novel nanosynthetic design concepts to build functional assemblies. He has won awards including the 3M Nontenured Faculty Award (2012-2014), the NSF CAREER award, and the R&D 100 Award, and he is the leader of an NSF Nanoscale Interdisciplinary Research Team (NIRT). His research has been featured in *Physics Today*, was selected by the *New Journal of Physics* in the exclusive 'Highlights of 2013' collection, and he has been named an "Emerging Investigator" by the *Journal of Materials Chemistry A* (2014).