Michael Stieff (M.S., chemistry; Ph.D., Learning Sciences, Northwestern University) is Assistant Professor of Learning Sciences and Chemistry at the University of Illinois-Chicago. He was awarded a Spencer Dissertation Year Fellowship Award from Northwestern University for his research on human problem solving in undergraduate organic chemistry. Prior to joining the Chemistry Department, he was Assistant Professor of Science Education at the University of Maryland-College Park, and he taught general chemistry at the secondary level and organic chemistry for the City Colleges of Chicago. His current research examines sex differences in organic chemistry problem solving, the interaction of spatial ability and chemistry expertise, and the development of visualization software for teaching chemistry. With a grant from the National Science Foundation, Stieff and his colleagues are currently studying how physical models help (and hinder) students in organic chemistry. This work has led to the finding that molecular models only benefit learning when students are able to physical handle models and that teaching methods that only display models can negatively impact student achievement. To address these limitations of models, Stieff is currently developing gesture-recognition interfaces that permit students to “handle” molecular models in virtual simulations.