

Hammer receives NSF CAREER award



Dr. Nathan Hammer, assistant professor of physical chemistry in the Department of Chemistry and Biochemistry at the University of Mississippi, is the recipient of a National Science Foundation Faculty Early CAREER Development Award. The title of his award is “CAREER: Spectroscopically Tracking the Evolution of Noncovalent Interactions From the Single Molecule Level to the Condensed Phases.” Funded by the Macromolecular, Supramolecular and Nanochemistry Program in the NSF Chemistry Division, Hammer will study the fundamental chemistry of noncovalent interactions in condensed phases. Various sized aggregates of molecules displaying noncovalent interactions will be prepared in a variety of chemical environments, and they will be studied using vibrational spectroscopy and computational modeling. The educational plan focuses on integrating computational methods and experiment in all levels of physical chemistry curricula and includes a summer research program in physical chemistry. This work will enhance the fundamental understanding of noncovalent interactions in condensed phases. Such weak interactions play important roles in a range of chemical and biological systems and are emerging as central in systems-level control over complex biological processes.