ON THE COVER: In "Why Did the Electron Cross the Road? A Scanning Tunneling Microscopy (STM) Study of Molecular Conductance for the Physical Chemistry Lab" (DOI:10.1021/ed400418h), Bradley W. Ewers, Amanda E. Schuckman, and James D. Batteas describe a series of STM experiments designed to engage students in cutting-edge research techniques while introducing and reinforcing topics in physical chemistry, quantum mechanics, solid-state chemistry, and the electronic structure of molecules and materials. The experiments provide advanced chemistry students an opportunity to view and study materials at the atomic- and molecular-length scales, allowing students to apply their understandings of quantum mechanical concepts to real systems.

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