

Abstract Submitted
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STM Exploration of Binary Nanocrystals CHENGGANG TAO, MARILENA LONGOBARDI, MATT SHELDON, BRYCE SADTLER, A. PAUL ALIVISATOS, MICHAEL F. CROMMIE, University of California, Berkeley and LBNL — Multi-component nanocrystals provide an exciting platform for creating flexibly tailored electronic nanodevices due to their “built-in” heterojunction interface. Such systems are potentially useful for creating inexpensive energy-conversion devices from abundant materials. Using scanning tunneling microscopy and spectroscopy, we have investigated the structural and electronic properties of binary CdS/Cu₂S nanorods bound to a metal surface. We will present spectroscopic results that provide new insight into energy level alignment within these dual-phase nanocrystals.

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