Sono electrochemical Approach Towards Nanostructures CLEMENS BURDA, XIAOFENG QIU, Case Western Reserve University — We will report on the sono electrochemical synthesis of nanostructured semiconductor materials. The talk will focus on the control of the nanostructure size, shape, and composition using sono electrochemistry as a versatile synthesis tool. The synthesis of targeted nanostructures requires thorough control of the redox chemistry during the growth process. The composition of the product can be controlled by changing the initial metal-ligand concentration. Furthermore, the properties of the novel materials will be discussed. Powder X-ray diffraction of the products confirmed the compositional change in the nanomaterials. Control of the involved sono electrochemistry also allows for the formation of highly monodispersed 1-D Nanorods. Qiu, Xiaofeng; Lou, Yongbing; Samia, Anna C. S.; Devadoss, Anando; Burgess, James D.; Dayal, Smita; Burda, Clemens. PbTe nanorods by sono electrochemistry. Angewandte Chemie, International Edition (2005), 44(36), 5855-5857. Qiu, Xiaofeng; Burda, Clemens; Fu, Ruiling; Pu, Lin; Chen, Hongyuan; Zhu, Junjie. Heterostructured Bi2Se3 Nanowires with Periodic Phase Boundaries. Journal of the American Chemical Society (2004), 126(50), 16276-16277.