

Abstract Submitted
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Reflectance anisotropy spectroscopy of II-VI semiconductor surfaces¹ R. A. VAZQUEZ-NAVA, N. ARZATE, B. S. MENDOZA, Centro de Investigaciones en Optica — The spectroscopical reflectance anisotropy (RA) response of II-VI semiconductor surfaces, which exhibits different reconstructions are studied. We use, an *ab initio* pseudopotential calculation in the framework of the density functional theory and within the local density approximation (DFT-LDA) to obtain the relaxed atomic positions, and then we use a microscopic formulation based on a semi-empirical tight binding (SETB) approach which includes spin-orbit (SO) interactions[1] to obtain the RA spectra. We show RA spectrum of each surface reconstruction and compare our theoretical results with experimental. We find a good agreement between experimental and theoretical spectra. [1] R.A. Vázquez-Nava, B.S. Mendoza and C. Castillo, Phys. Rev. B **70**, 165306 (2004).

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