Reflectance anisotropy spectroscopy of II-VI semiconductor surfaces\textsuperscript{1} 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 \textit{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\cite{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. \cite{1} R.A. Vázquez-Nava, B.S. Mendoza and C. Castillo, Phys. Rev. B \textbf{70}, 165306 (2004).

\textsuperscript{1}This work has been partly supported by CONACYT, México, grant SEP-2004-C01-48142

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Date submitted: 27 Nov 2007

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