

<b>Title:</b>	Adsorption of zinc on cadmium telluride and mercury telluride surfaces
<b>Authors:</b>	Wijewardena K.A.I.L., Neilson D., Szymanski J.
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<b>Abstract:</b>	Modifications of the surface properties of cadmium and mercury telluride due to the adsorption of zinc atoms are investigated. The bulk band structure is obtained by parametrizing the matrix elements in an empirical tight-binding Hamiltonian. A tellurium-terminated (111) surface is formed by introducing an infinite repulsive potential localized within a layer of cations. The adsorption of a Zn atom at a centered site is studied. The adsorption properties calculated are (i) the change in density of states, (ii) charge densities, and (iii) binding energies as functions of the adsorption parameters.