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**Electronic and Magnetic Properties of Zincblende Al1-xVxP Alloys**

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Abstract

The structural, electronic and magnetic properties of zincblende of Al1-xVxP alloys with concentrations x (0,0.25,0.5,0.75 and 1) have been studied using full-potential linearized augmented plane method (FP-LAPW) withlocal spin density and generalized gradient approximations ( LSDA and GGA) for the energy and the exchangecorrelation potential, we calculate the lattice parameters, bulk modulus, pressure derivative, band gap and the totalmagnetic moment for zincblende of Al1-xVxP and we got good results in comparison with experimental andtheoretical results.