

## **BUILD EXPRESSIONS OF THERMODYNAMIC PARAMETERS AND CUMULANTS THROUGH NEW STRUCTURAL PARAMETERS FOR SOME PURE CUBIC CRYSTALS BY THE ANHARMONIC CORRELATED EINSTEIN MODEL**

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### **ABSTRACT**

By using potential effective interaction in the anharmonic correlated Einstein model in XAFS (X - ray absorption fine structure) theory on the basis of quantum statistical theory with phonon interaction procedure, the expressions describe asymmetric component through by the cumulants and thermodynamic parameters including the anharmonic effects contributions and by new structural parameters of cubic crystals have been formulated. This new parameters describe distribution of atoms. The expansion of cumulants and thermodynamic parameters through new structural parameters have been performed.

**Keywords:** Anharmonic, XAFS, cumulants, thermodynamic, parameters.

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