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Mechanical Properties of Pure ZnS Doped $(NaCl)_x(NaI)_{y-x}(KI)_{1-y}$ Ternary Mixed Crystals

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Abstract: *In the present research work, pure and ZnS doped ternary mixed crystals of alkali halides $(NaCl)_x(NaI)_{y-x}(KI)_{1-y}$ of different compositions were grown by slow evaporation technique and studies of microhardness and dielectric constant have been carried out. To estimate mechanical properties by using Vicker's microhardness measurement then the stability and measure the electrical properties by using DC and AC measurement due to growing crystal. The mechanical parameters like Meyer's work hardening co-efficient, Stiffness constant, Second order elastic constant, Young's modulus, Yield strength, Fracture toughness and Brittleness index were calculated by using available relations.*