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Zn/⁺, Zn/^{+/}/P/⁺ and Zn/^{+/} +//As/⁺ implanted InP: study of electrical and symmetry properties

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Abstract

InP is known to be characterized by a low activation efficiency of p-type dopants. Some attempts have been previously undertaken to use the coimplantation of P/⁺ ions in order to improve the activation efficiency of Be and Mg in InP. The goal of this work was to study the activation efficiency of Zn impurity coimplanted with P/⁺ and As/⁺ ions in n-InP as well as the peculiarities of crystal lattice recovering during annealing. The latter was investigated by optical second harmonic generation (SHG) method which proved to be a versatile and sensitive probe of symmetry properties of InP near-surface layers.

References:

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