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An Investigation of Nitride Formation on InP Surface After Nitrogen Ion implantation MOHAMMAD REZA HANTEHZADEH, Azad University — The effect of nitrogen ion implantation and change in physical characteristics of InP [100] surface after nitrogen ion implantation is investigated. The energetic 30 KeV nitrogen ions with different doses were implanted into [100] InP surface at about 500-700 k. The formation of different phases of indium nitride and change in surface morphology after the implantation is studied. The annealing effect on change in nitride phase in a nitrogen environment at temperatures above 900 k is observed. The morphology and phases of the surface after ion implantation is characterized using AFM and XRD.

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