Study of Te Diffusion into Structure GaSb-n/GaSb-p on GaSb-n Substrate

Enrique Rosendo[a], R.Vargas-Sanabria[b], J. Martínez[a], T. Díaz[a], H. Juárez[a], F. De Anda[c], M. A. Vidal[c], [a]*CIDS-ICUAP 14 Sur y San Claudio, Col San Manuel, Puebla, México C. P. 72570.* [b]*Facultad de Ciencias UAEMex. Instituto Literario 100 Centro, Toluca, México C. P. 50000.* [c]*IICO-UASLP. Ave. Karakorum 1470, Lomas Cuarta Sección, SLP, México. C. p. 78210.* E-mail: erosendo@siu.buap.mx

The study of the influence about Te diffusion in structural properties of thin layers GaSb-p with the high resolution X-ray diffraction technique, having like Te source a layer type-n is presented in this work. The samples were grown with structure GaSb-n/GaSb-p on GaSb-n substrate by LPE technique. The diffusion process was done through heat treatment to different temperatures and times. The results obtained with X-ray diffraction are in agreement with the photoluminescence measurement.

Keywords: diffusion, high resolution x-ray diffraction, LPE