

Analysis by AES and EELS Spectroscopy of InPO_4 and In_2O_3 Developed on InP Substrate

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The indium oxide In_2O_3 and InPO_4 are the transparent conducting oxides (T.C.O) appropriate to several applications in optoelectronic field.

The irradiation by 4keV Energy on the InP substrate led to generate two oxides such as InPO_4 and In_2O_3 . Developed on the InP. Owing the both methods of Analysis, Auger Electron Spectroscopy (AES) and Electron Energy Loss Spectroscopy (EELS) they can detected the presence of these oxides. When using the treatments by Casa XPS and webPlotDigezer softwares, the quantities of InPO_4 and In_2O_3 have been estimated according to the time of electron irradiation.