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Characterization of defects in ZnO implanted with Ar⁺ ions using positron annihilation technique

ZnO (wurtzite) samples were implanted with Ar⁺ ions to generate intrinsic defects within the samples for fluencies ranging from 10^{14} to 10^{18} per cm. Doppler broadening of the annihilation centroids were obtained to determine S- and W - parameters which are associated with a quantity of defects. X-ray diffraction (XRD) method was employed to determine any structural or phase change associated with Ar⁺ implantation. The positron annihilation spectroscopy results were correlated with Optical absorption spectra of the crystals to investigate various bands at different fluencies.

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

MSc

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