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## Characterization of defects in ZnO impanted 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  $10^4$  to  $10^1$ 8 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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