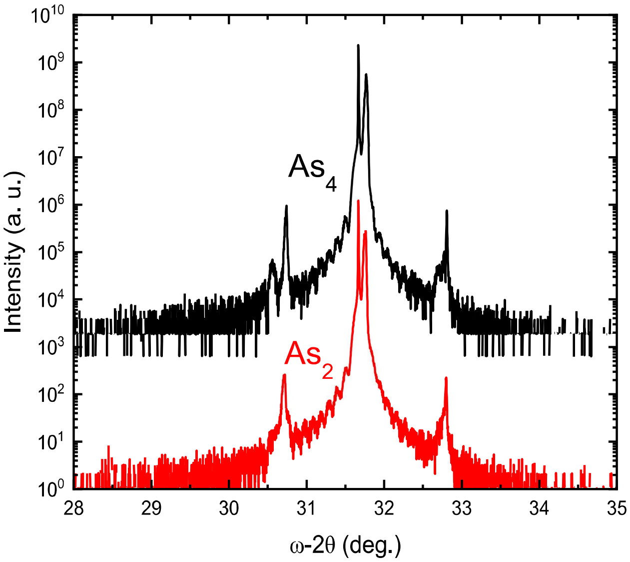

Figure 1. High-resolution XRD ω-2θ scans of InAlAs PIN diodes containing As_2 and As_4.

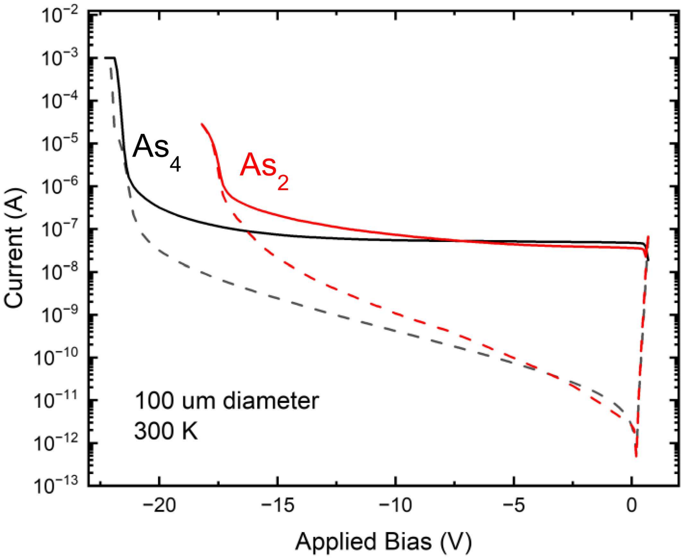

Figure 2. Light (solid lines) and dark (dashed lines) IV measurements for InAlAs PIN diodes containing As_2 and As_4.

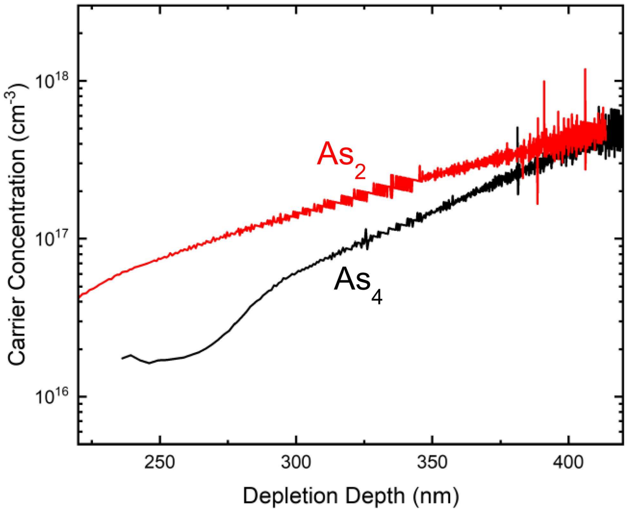

Figure 3. Carrier concentration versus depletion depth for the two InAlAs PIN diodes, showing a reduction in UID concentration with the use of As_4.

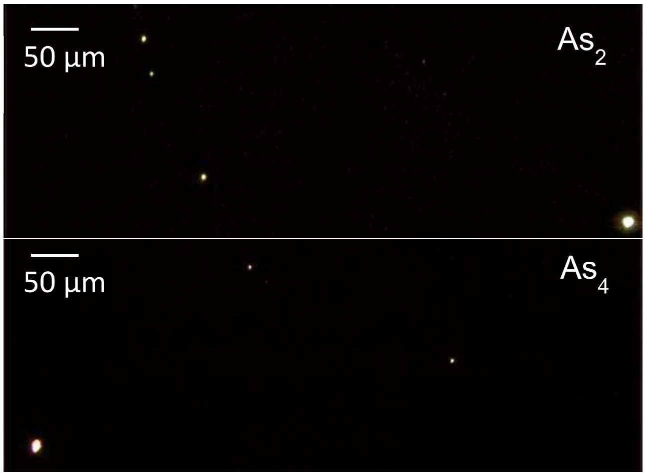

Figure 4. Dark field microscopy images of both PIN diodes, showing comparable defect densities of ~2000 defects/cm^2.