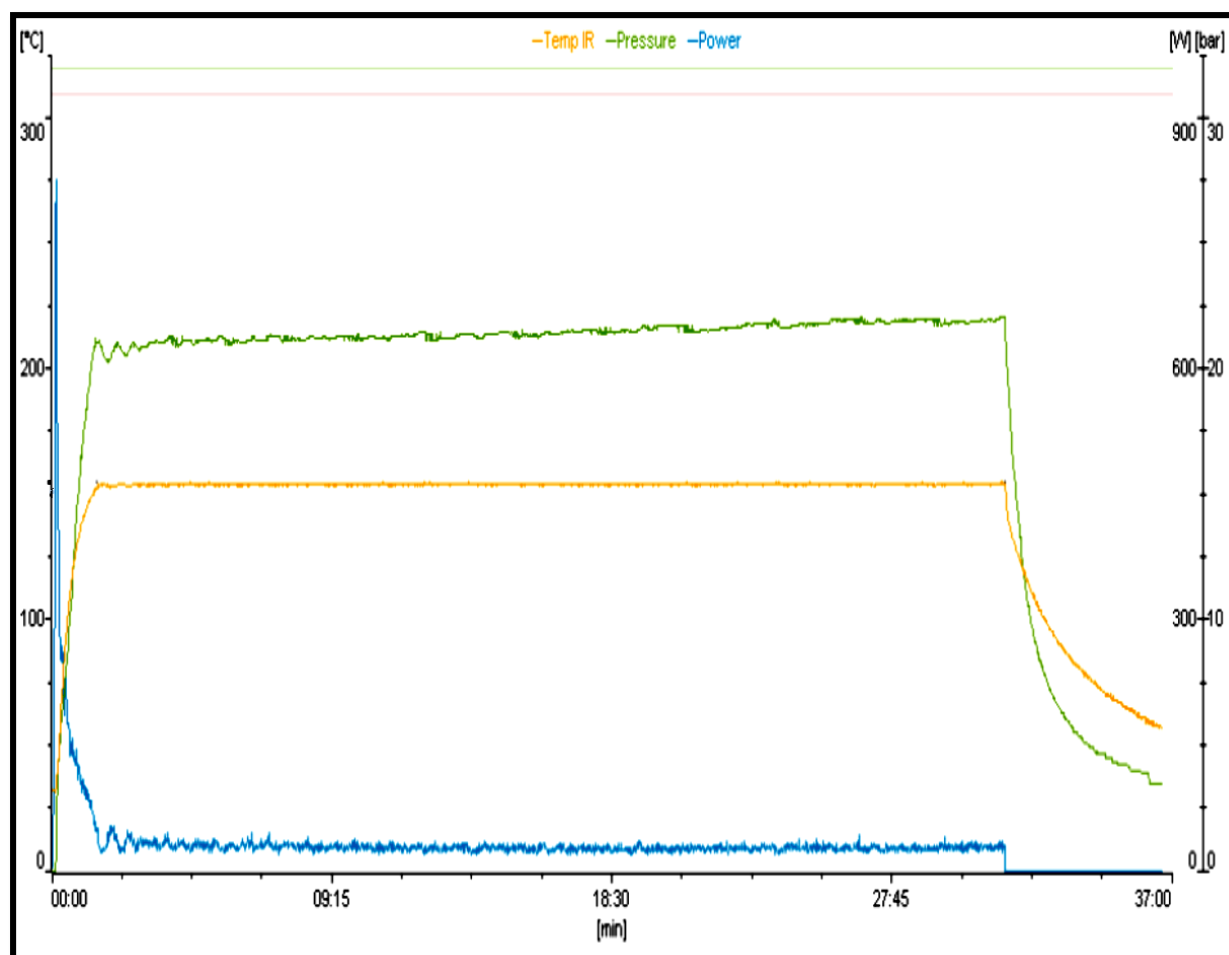
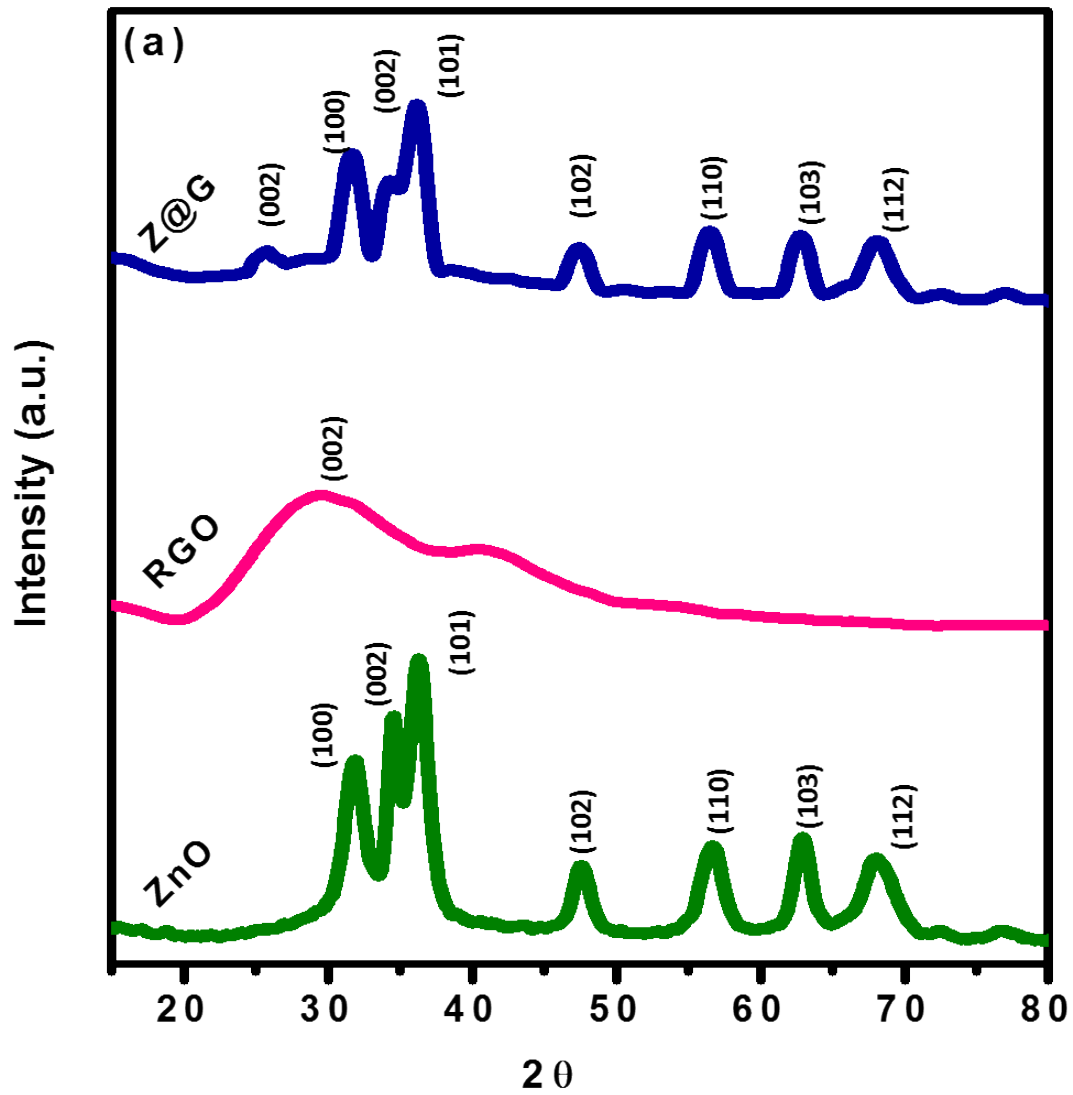


Role of Zinc Oxide and Carbonaceous Nanomaterials in Non-Fullerene Based Polymer Bulk Heterojunction Solar Cells for Improved Cost-to-Performance Ratio

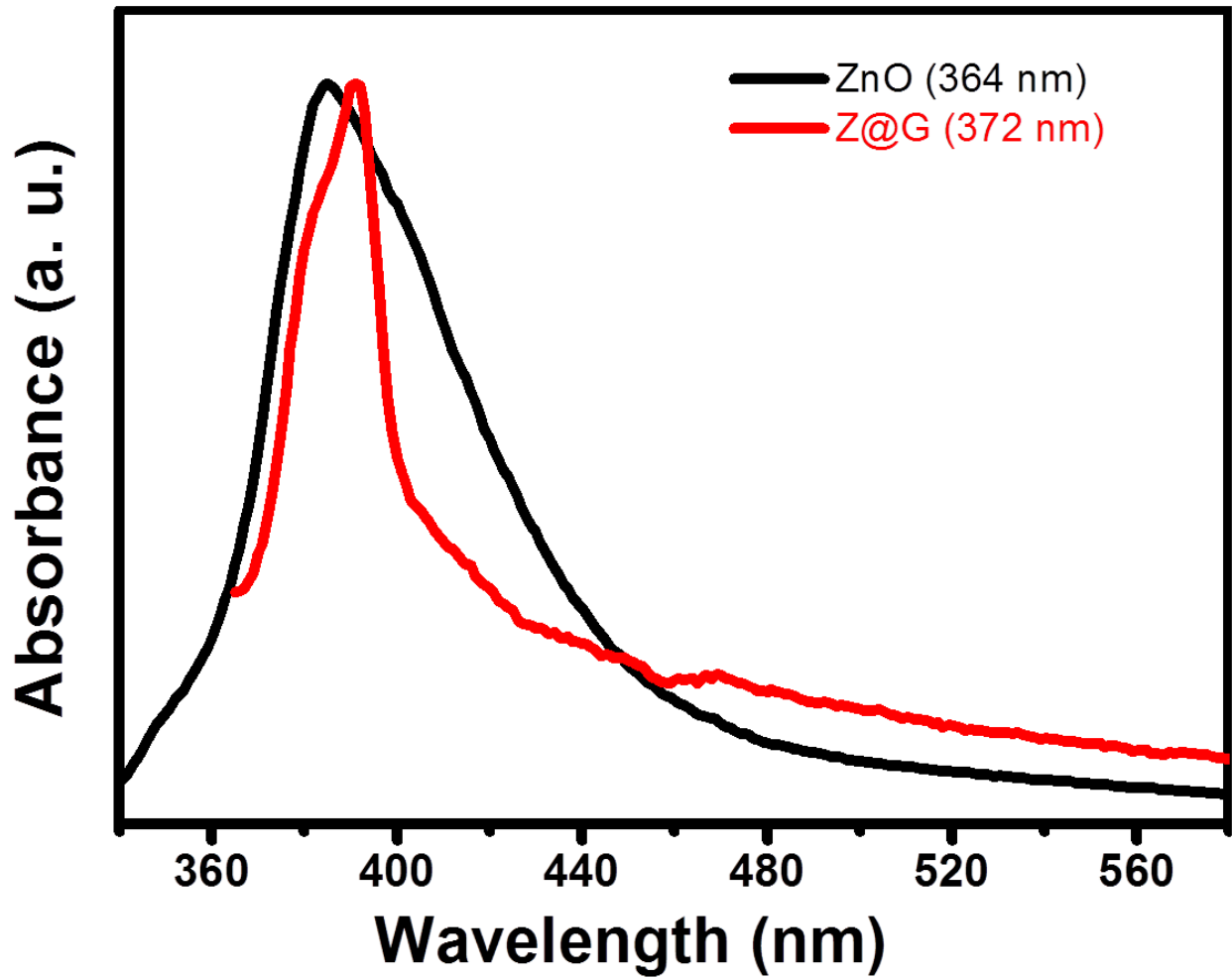
Rajni Sharma¹, Firoz Alam², A. K. Sharma³, V.Dutta², S.K.Dhawan¹



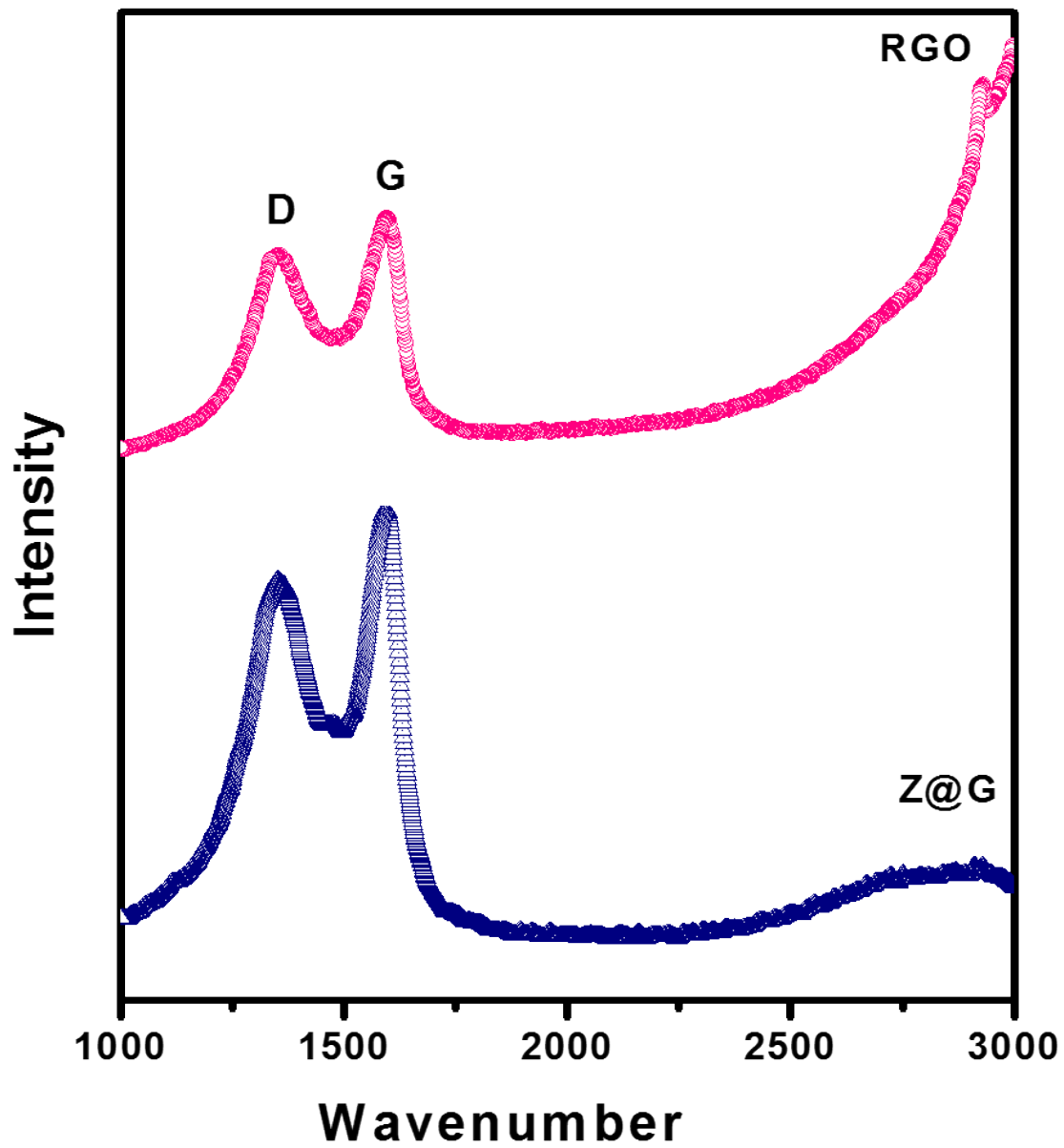
S1: Microwave assisted hydrothermal reaction showing variation of pressure, power and temperature during Z@C_{dots} synthesis.



S2: XRD of procured RGO, as synthesized ZnO nanoparticles and ZnO/C-dots nanocomposite (Z@C_{dots}) describing phases and crystallinity.



S3: UV-Vis spectra of as synthesized ZnO and Z@G nanocomposite; with absorption peak at 364 nm and 372 nm, demonstrating the shift in spectrum of nanocomposite



S4: Raman spectra of RGO and Z@G nanocomposite; showing changes in D and G band.



S5: Contact angle measurement of Z@C_{dots} nanocomposite; with contact angle higher than 90° (showing hydrophobic nature of Z@C_{dots})