

Facile preparation of P3HT–ZnO heterostructure: Structural and spectroscopic properties. / G. L. Kabongo, G. H. Mhlongo, B. M. Mothudi, M. S. Dhlamini. / Nano Studies. – 2015. – # 11. – pp. 57-62. – eng.

In the current research work we demonstrate the ability to enhance the absorption properties of poly(3-hexylthiophene) (P3HT) via ZnO nanocrystals doping. Structural properties, optical absorption and vibrational modes of the samples were probed by means of X-ray diffraction (XRD), Ultraviolet–Visible (UV–Vis) spectroscopy, Raman spectroscopy and Fourier Transform InfraRed (FTIR) Spectroscopy. The effective enhancement of the absorption characteristics reveals that P3HT–ZnO heterostructure is an outstanding candidate for efficient hybrid photovoltaic (HPV) applications. Fig. 4, Ref. 20.

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