

# Accepted Manuscript

Effect of  $V_2O_5$  concentration on the structural and optical properties and DC electrical conductivity of ternarysemiconducting glassynanocomposites

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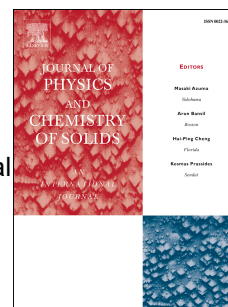
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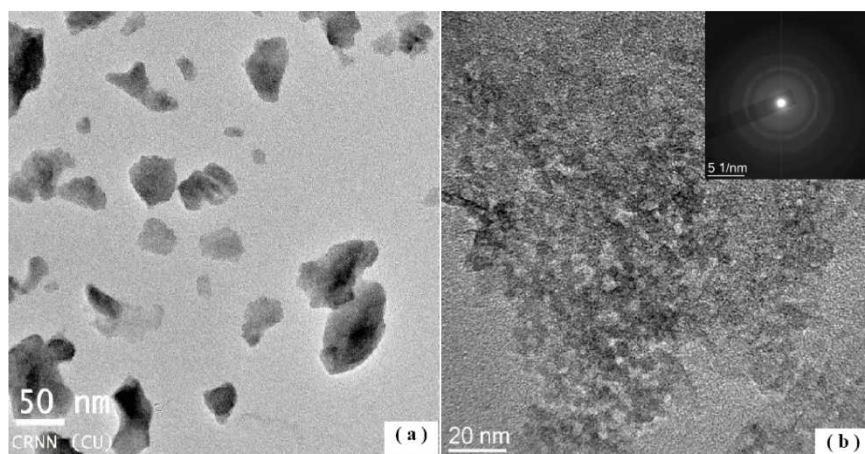
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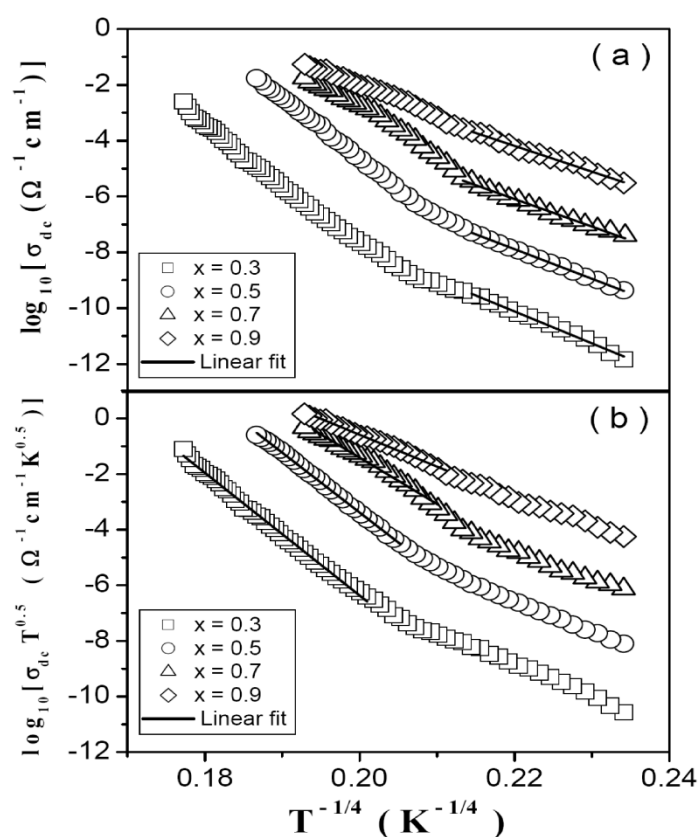
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**Graphical Abstract**

TEM micrographs of  $x\text{V}_2\text{O}_5-(1-x)$  ( $0.05\text{CdO}-0.95\text{ZnO}$ ) glass nanocomposites for (a)  $x = 0.3$  and for (b)  $x = 0.9$  respectively; SAED pattern of the glassy sample for  $x = 0.9$  in the inset.



(a) Variation of Dc conductivity at low temperatures as a function of  $T^{-0.25}$  (Mott's model), (b) Variation of  $\sigma_{dc} T^{1/2}$  as a function of  $T^{-0.25}$  (Graves's Model) and Solid lines are best-fitted liner fit data.

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