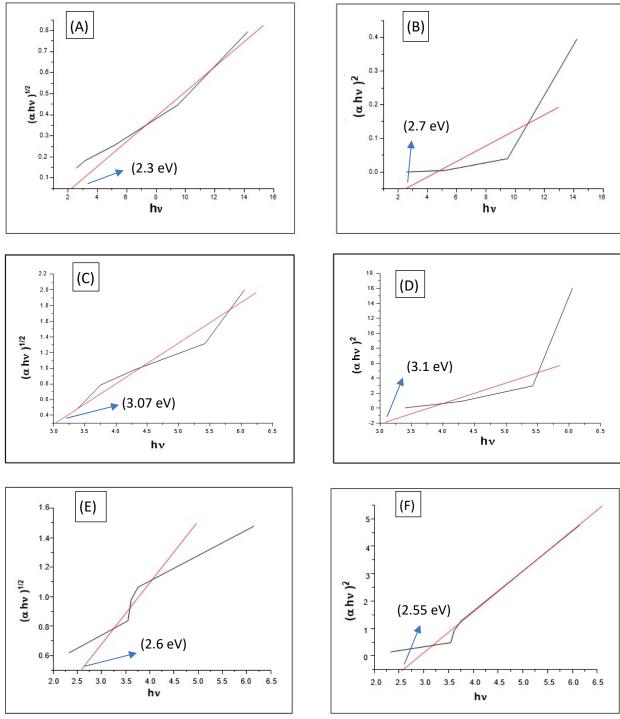
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**Fig. S2 (ESI).** Direct and indirect optical band gap  $(E_g)$  of  $Co_3O_4$  QDs (A and B), PPy (C and D) and  $Co_3O_4$ @PPy NCs (E and F).