Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supplementary Information:

Selective near infrared (NIR) photodetector fabricated with colloidal CdS:Co quantum dots

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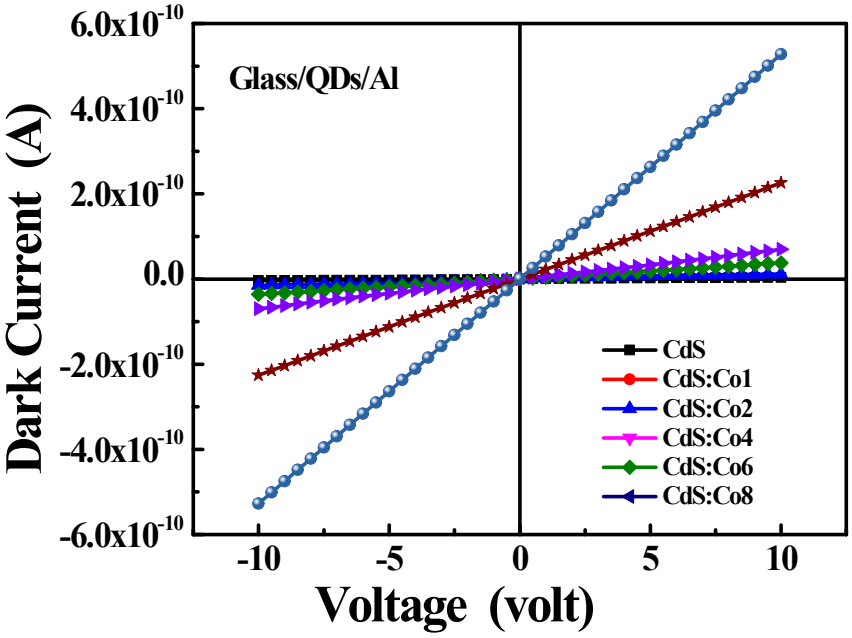

Fig. S1 The linear plot of I-V data of Co doped CdS device under dark with device structure Glass/CdS:CoX/Al

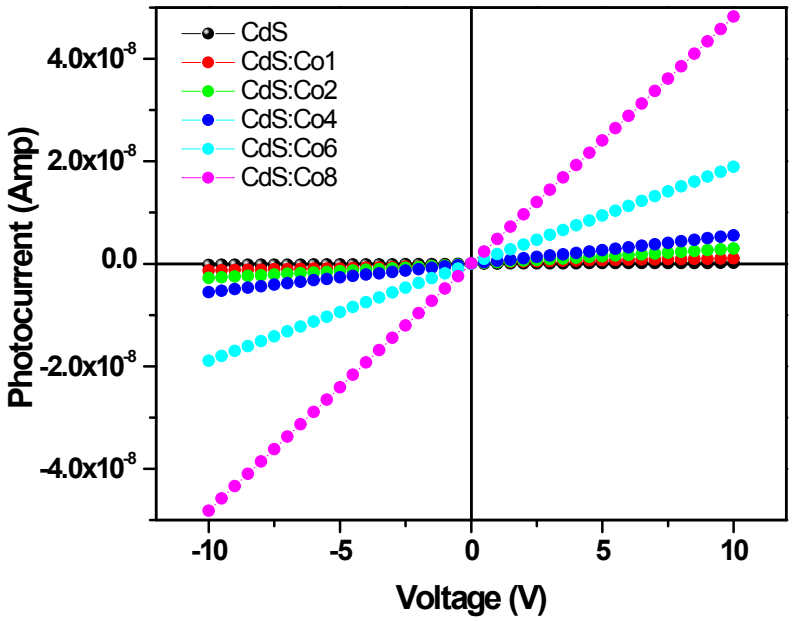

Fig. S2 The linear plot of I-V data of Co doped CdS device under light with device structure Glass/CdS:CoX/Al

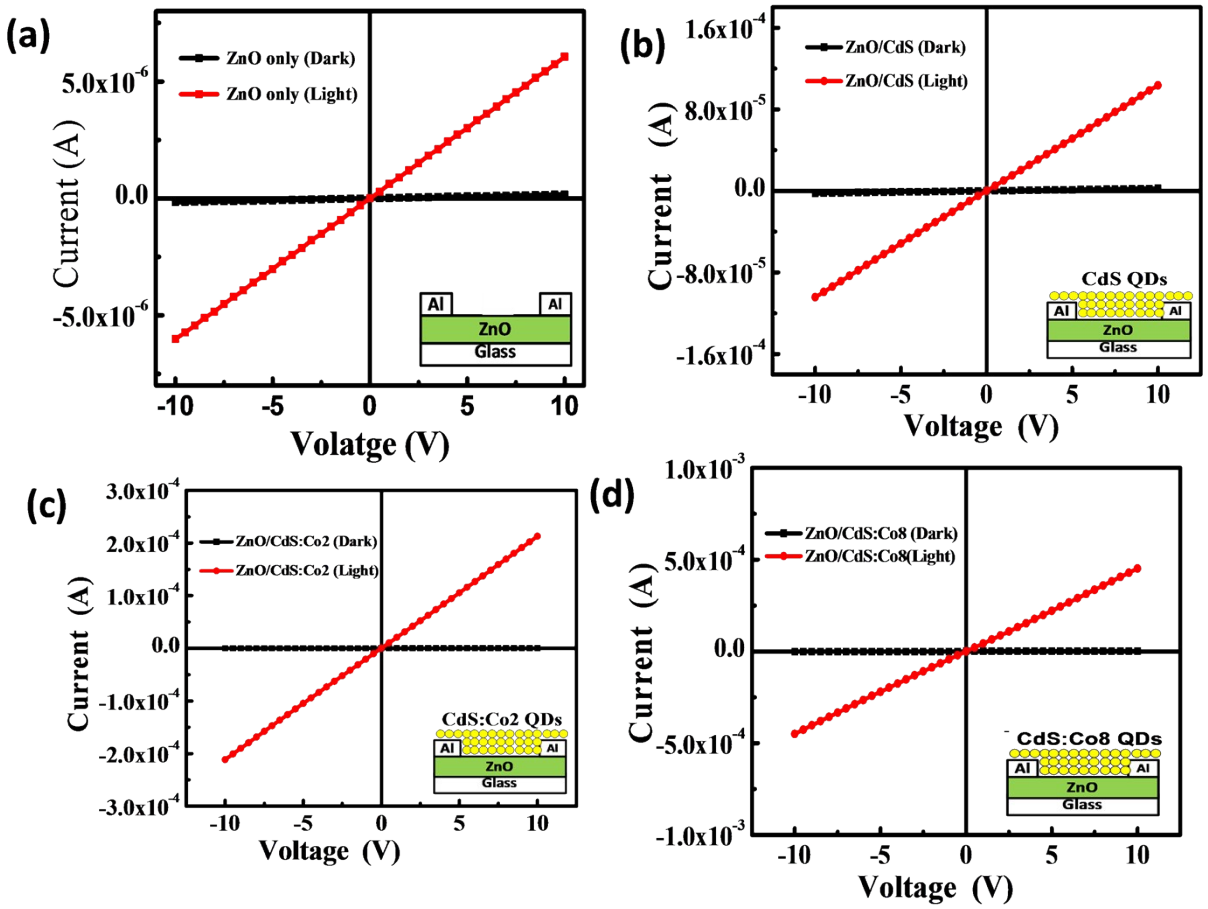

Fig. S3 Linear plot of current vs. voltage (I-V) characteristics of a) ZnO only photoconductor and CdS:Co QDs /ZnO heterojunction devices with doping concentration of b) 0% , c) 2% and d) 8%.

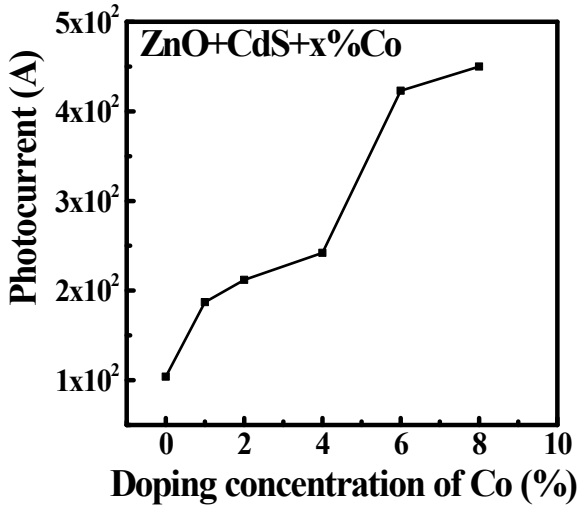

Fig. S4 The enhancement of photocurrent with doping concentration of ZnO/CdS:CoX/Al

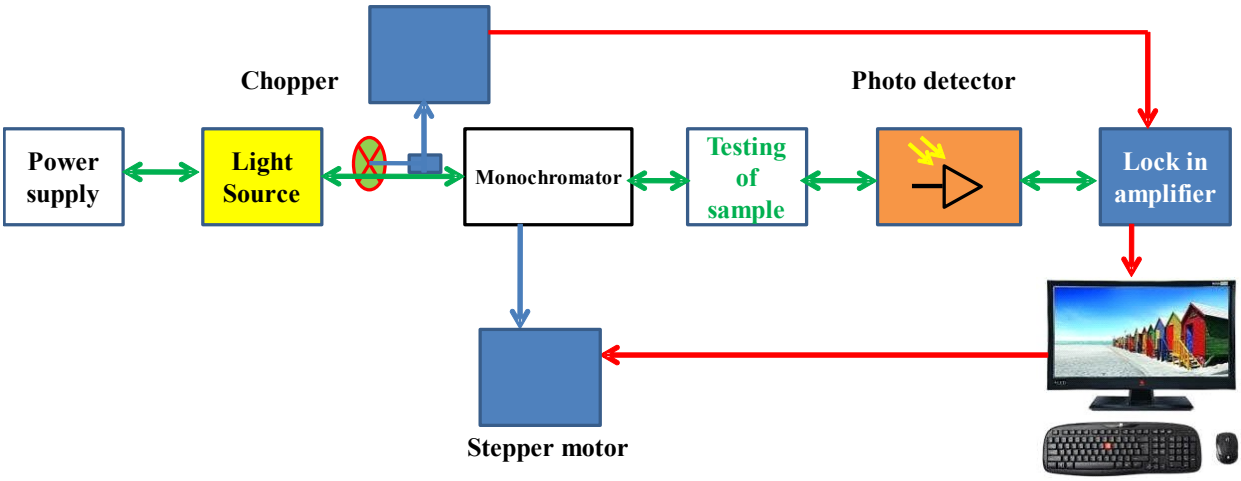

Fig. S5 Schematic presentation of EQE measurement set-up of photodetector devices.

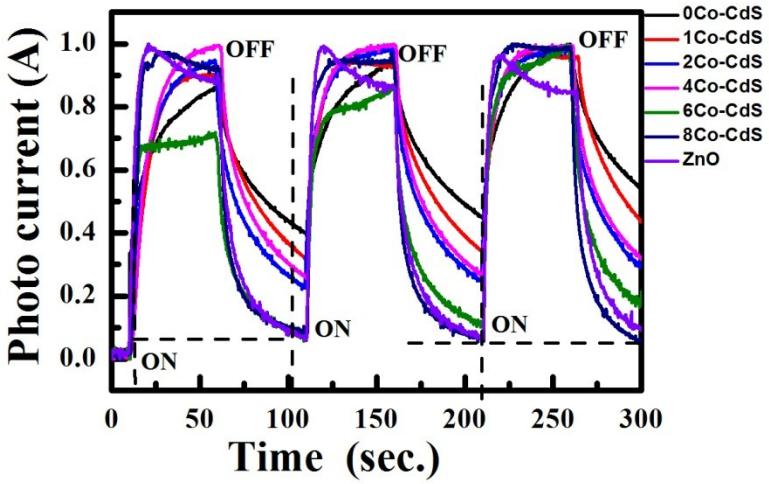

Fig. S6 The graph show the Time response of ZnO/CdS:XCo/Al where x= 0, 1, 2, 4, 6, 8 and pure ZnO