

## OPTICAL AND MAGNETIC TUNING OF ELECTRICAL TRANSPORT ACROSS THE INTERFACES OF Zn<sub>0.3</sub>Ni<sub>0.7</sub>Fe<sub>2</sub>O<sub>4</sub>/CuPc HETEROSTRUCTURE

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*We have fabricated a p-Si/Zn<sub>0.3</sub>Ni<sub>0.7</sub>Fe<sub>2</sub>O<sub>4</sub>(ZNFO)/CuPc/Au heterostructure and investigated its magnetic field-induced tuning of photocurrent. Under illumination of 660nm laser, photocurrent increases with increase of optical power. With simultaneous application of light and magnetic field, a drastic change in the ratio of photocurrent with magnetic field ( $I(H)$ ) to photocurrent without magnetic field ( $I(0)$ ) is observed for optical power variations at a fixed positive bias. A significant decrease in electrical hysteresis width ( $|\Delta I|$ ) with magnetic field at higher optical illumination is noticed.*

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