

## Electronic Supporting Information

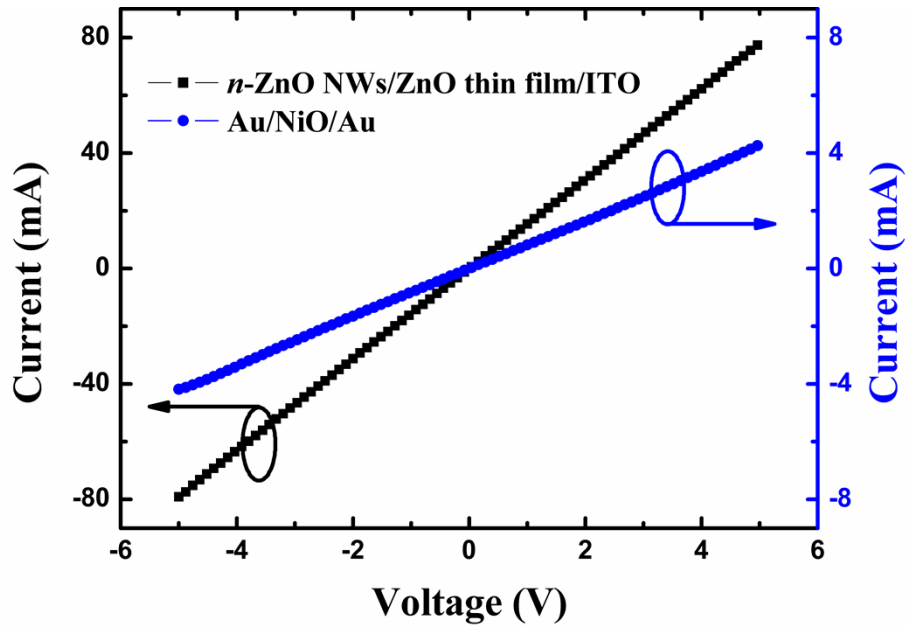
# **Unusual electroluminescence from n-ZnO@i-MgO core-shell nanowire color-tunable light-emitting diode at reverse bias**

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**Fig. S1** I-V curves of *n*-ZnO NWs/ZnO thin film/ITO and Au/NiO/Au. The both ohmic behaviors indicate that no potential barrier heights are existent in the *n*-ZnO NWs/ZnO thin film/ITO and Au/NiO interfaces. Therefore, it is confirmed that the rectification characteristic originates from the p-NiO/i-MgO/*n*-ZnO heterojunctions.