Supporting Information

Spintronic Hydrogen Evolution Induced by Surface Plasmon of Silver Nanoparticles Loaded on Fe and Co doping ZnO Nanorods

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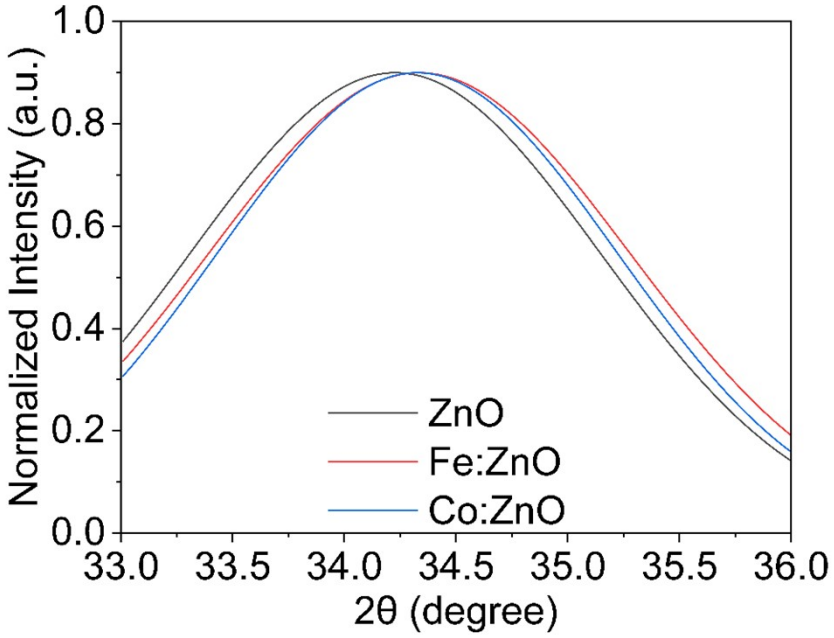

Figure S1. X-ray diffraction of TM:ZnO (TM: Fe, Co) NRs coated by silver NPs in the (002)-indexed plane (corresponding to JCPDS No.36-1451).

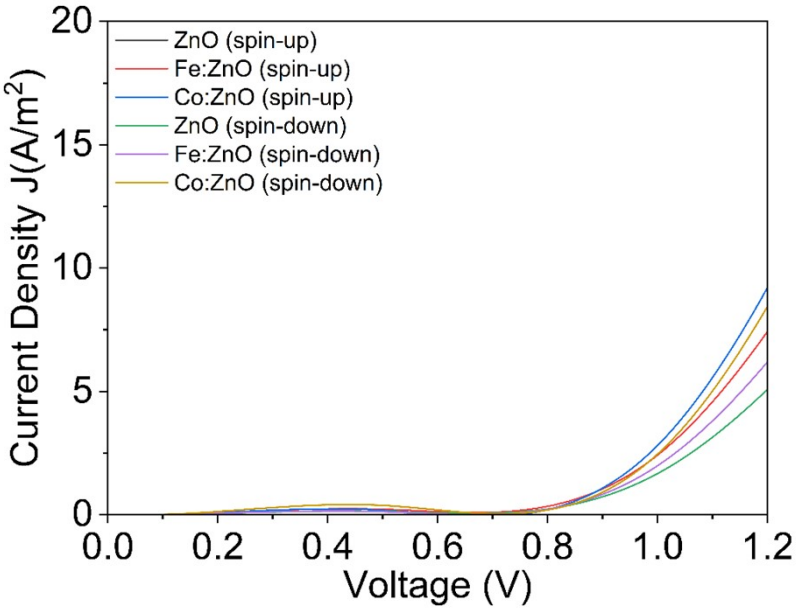

Figure S2. LSV-curve of ZnO, Fe:ZnO and Co:ZnO NRs layer on the ITO glass substrate with 0.2 M $KHCO_3$ as the electrolyte under 405-nm circular polarized light of coherent $\hbar$ / $-\hbar$ radiation. The voltage is referred to reversible hydrogen electrode (RHE).

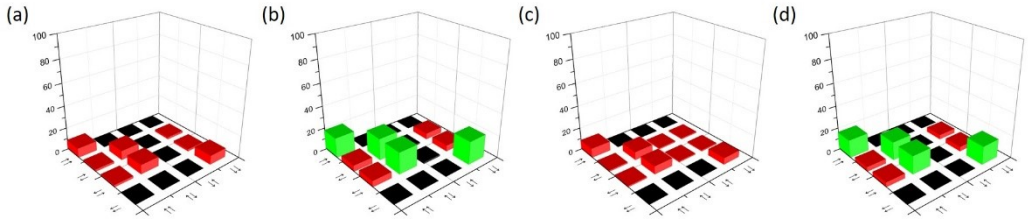

Figure S3. Quantum state tomography of the Bell states under applied voltage of 0.5 V to a coating of silver NPs on (a) Fe:ZnO NRs with 405 nm, (b) Co:ZnO NRs with 405 nm, (c) Fe:ZnO NRs with 532 nm, (d) Co:ZnO NRs with 532 nm, respectively.

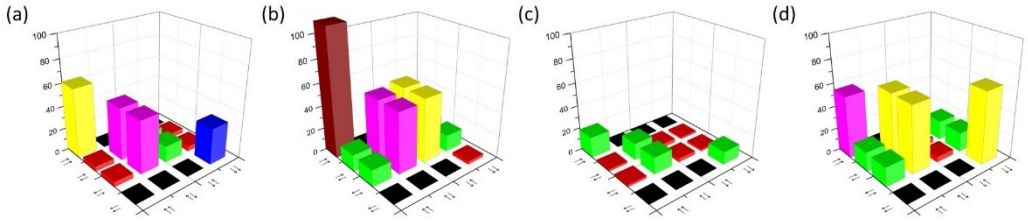

Figure S4. Quantum state tomography of the Bell states under applied voltage of 1.5 V to a coating of silver NPs on (a) Fe:ZnO NRs with 405 nm, (b) Co:ZnO NRs with 405 nm, (c) Fe:ZnO NRs with 532 nm, (d) Co:ZnO NRs with 532 nm, respectively.