



FIG. 1: (Color online) Magnetic properties of  $\text{Zn}_{0.9}\text{Co}_{0.1}\text{O}$  thin films measured by a SQUID magnetometer. (a) Magnetic-field ( $H$ ) dependence of the magnetization. The  $H$ -linear components deduced from high  $H$  data have been subtracted. The inset shows raw data containing the diamagnetic signals from the substrates. (b) Temperature ( $T$ ) dependence of the paramagnetic component of the magnetization represented in the form of magnetic susceptibility, where the  $T$ -independent component deduced from high- $T$  data have been subtracted.