Figure a shows the magnetization ($M$) versus an applied magnetic field ($H$) at 300K for different samples: Nanowire raw, Nanowire @800, and Nanowire:H.

Figure b displays the X-ray diffraction pattern for the Nanowire:H sample, indicating the presence of specific crystallographic phases such as ZnO, Co$_3$O$_4$, CoO, Co$_{cubic}$, and Co$_{hexa}$.