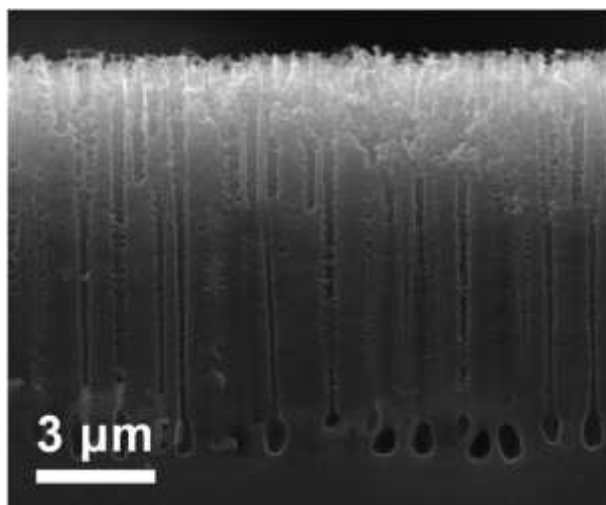
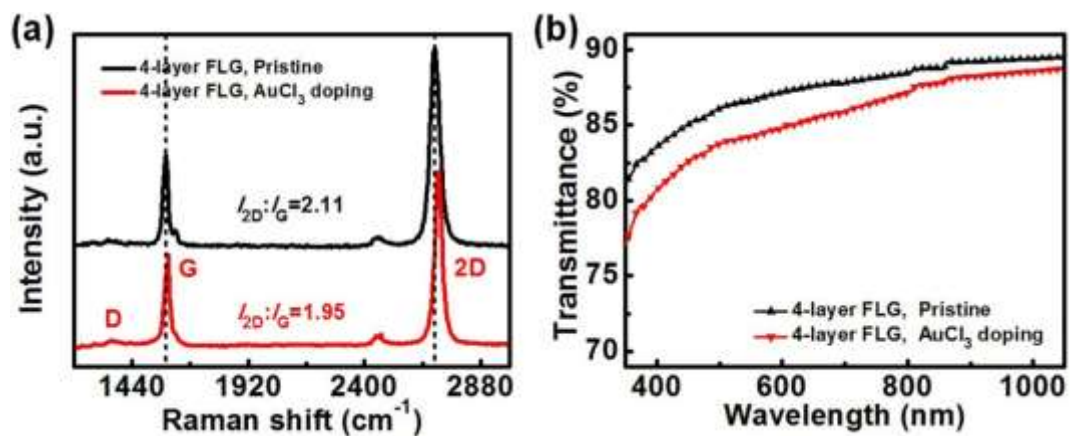


## Supporting information



**Figure S1.** Typical cross-sectional view SEM image of the electrochemical-etched SiHA.



**Figure S2.** (a) Transmittance and (b) Raman spectra of 4-layer FLG before and after AuCl<sub>3</sub> doping.