Supporting Information:

Table S1. The swelling ratios of the PNIPAM and P(NIPAM-NVP) hydrogels.

Hydrogels	BIS(%)	m_e(g)	m_d(g)	SR
PNIPAM	3.3	1.429	0.144	8.92
P(NIPAM-NVP)	3.3	2.38	0.176	12.5
P(NIPAM-NVP)	4.5	1.686	0.187	7.97
P(NIPAM-NVP)	6.0	1.288	0.182	6.08

Swelling ratios (SR) of the hydrogels:

After swelling hydrogels in deionized water for 48 h, the swelling ratios were determined gravimetrically by using the following equation:

$$S = \frac{m_e - m_d}{m_d}$$

where m_e is the weight of swollen hydrogels (g) and m_d is the weight of dried hydrogels (g).

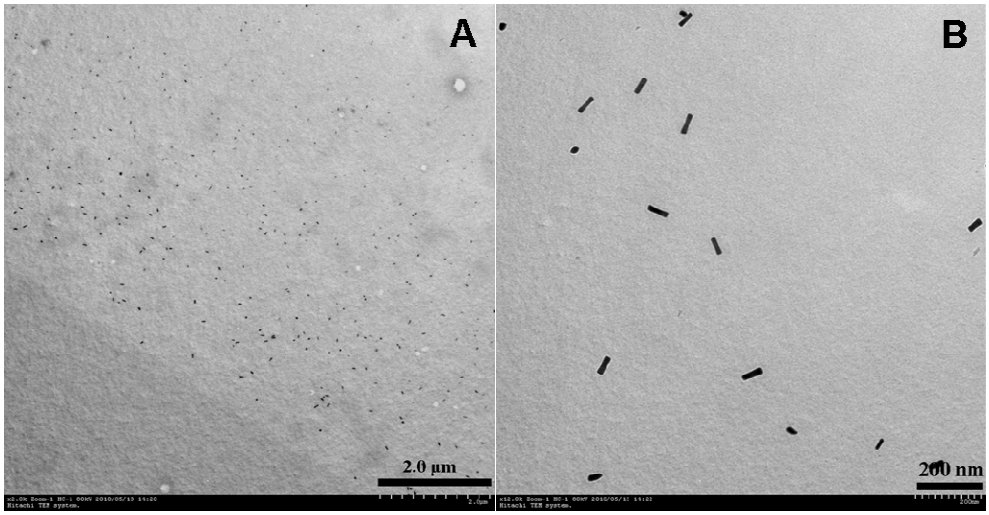

Figure S1. (A) (B) Cross-sectional TEM image of the P(NIPAM-NVP)/GNRs composites at 70 μL HCl at different magnification.