

## Graphene Decorated with MoS<sub>2</sub> Nanosheets: Synergetic Energy Storage composite electrode for Supercapacitor Applications

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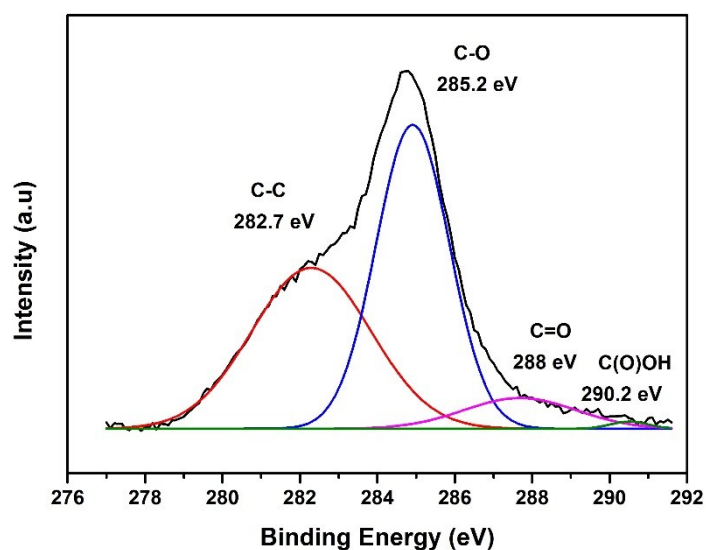
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**Figure S1.** High-resolution C1s spectra of GO.

The high-resolution C1s XPS spectrum of the GO sheets showed a sharp peak at 282.7 eV that corresponded to C-C bonds of carbon atoms in a conjugated honey-comb lattice. Peaks at 285.2, 288 and 290.2 eV could be attributed to different C-O bonding configurations due to the harsh oxidation and destruction of the sp<sup>2</sup> atomic structure of graphite [1].

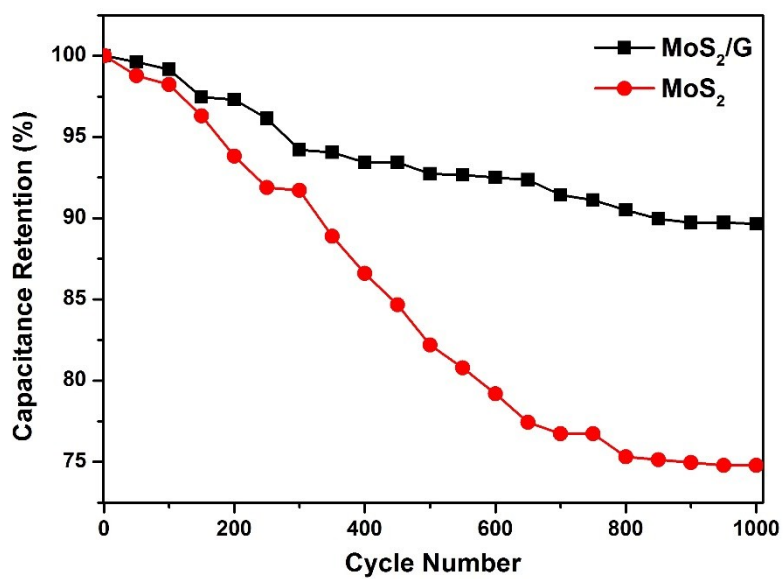


Figure S2.

Capacitive retention of MoS<sub>2</sub>/G composite and pure MoS<sub>2</sub>.

#### Reference

- [1] Surajit Some, Seok-Man Ho, Pooja Dua, Eunhee Hwang, Young Hun Shin, HeeJoun Yoo, Jong-Sun Kang, Dong-ki Lee, and Hyoyoung Lee, ACS Nano 6, 7151–7161(2012).