[Supporting Information]

PVdF-HFP/Exfoliated Graphene Oxide Nanosheets Hybrid Separators for Thermally Stable Li-ion Batteries

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KEYWORDS: Li-ion battery; separators; graphene oxide; safety; thermal stability

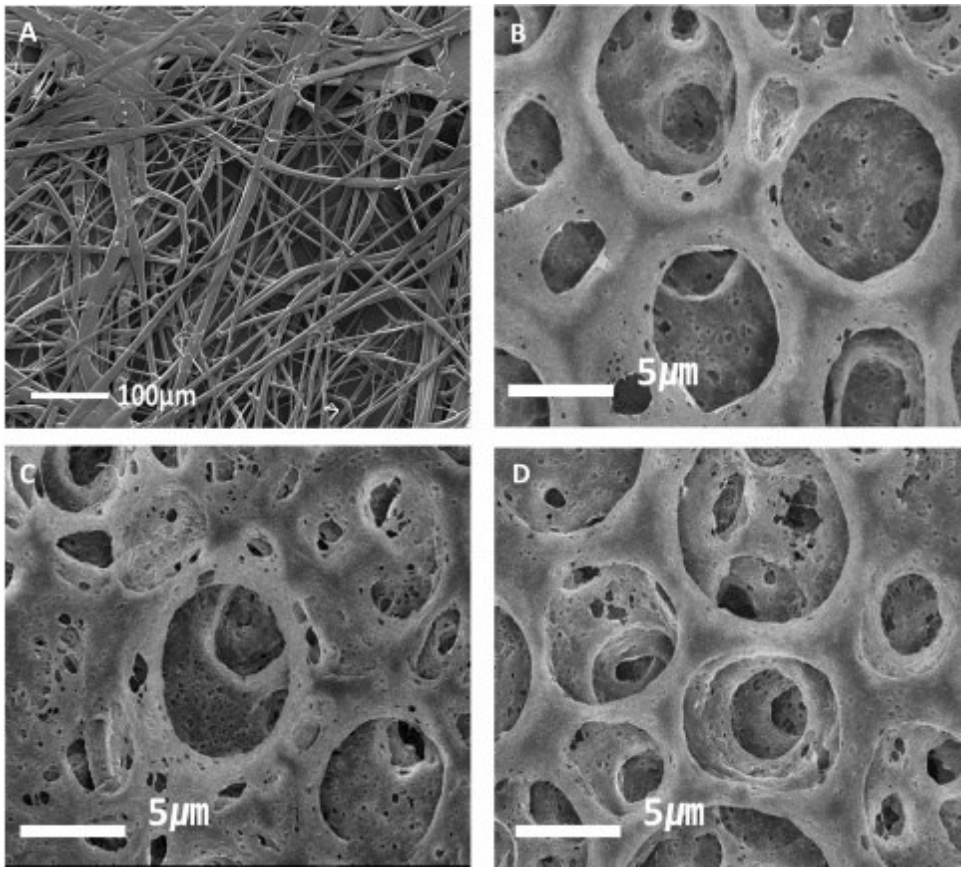

Figure S1. SEM micrographs of the surfaces of (a) Pure Nonwoven substrate and PVdF-HFP separator prepared using a 7:3 ration of PVdF A to B, by weight, with various GO nanosheets contexts : (b) 0.0033 wt%, (c) 0.0044 wt%, (d) 0.0066 wt%

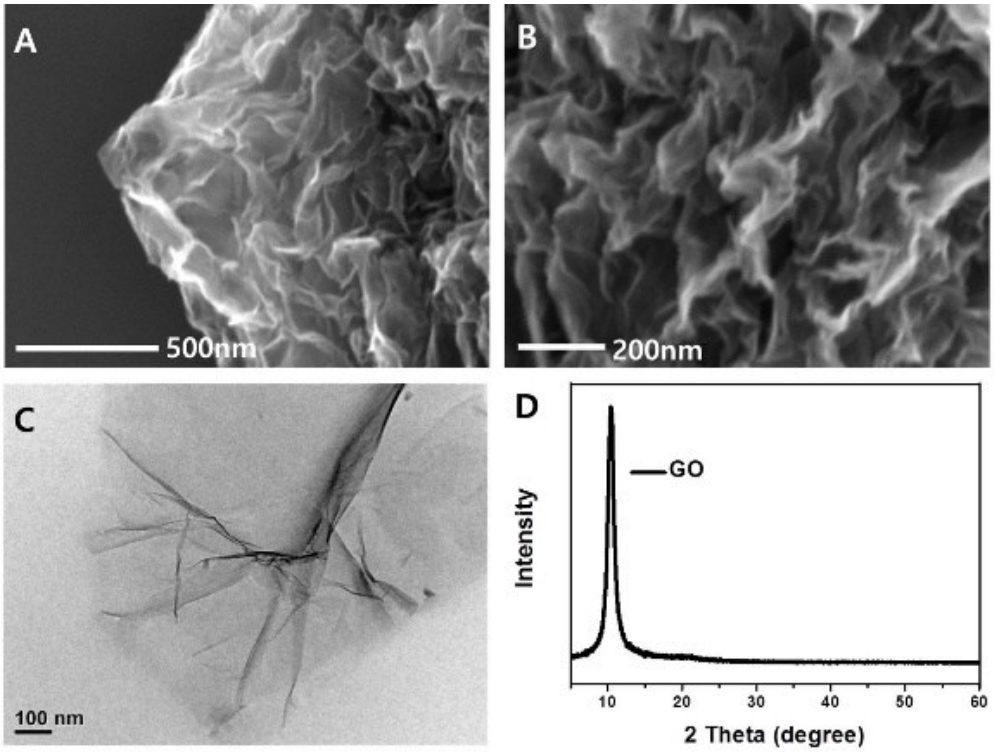

Figure S2. (A, B) SEM images of GO nanosheets (C) TEM images of GO and (D) XRD patterns of GO nanosheets.

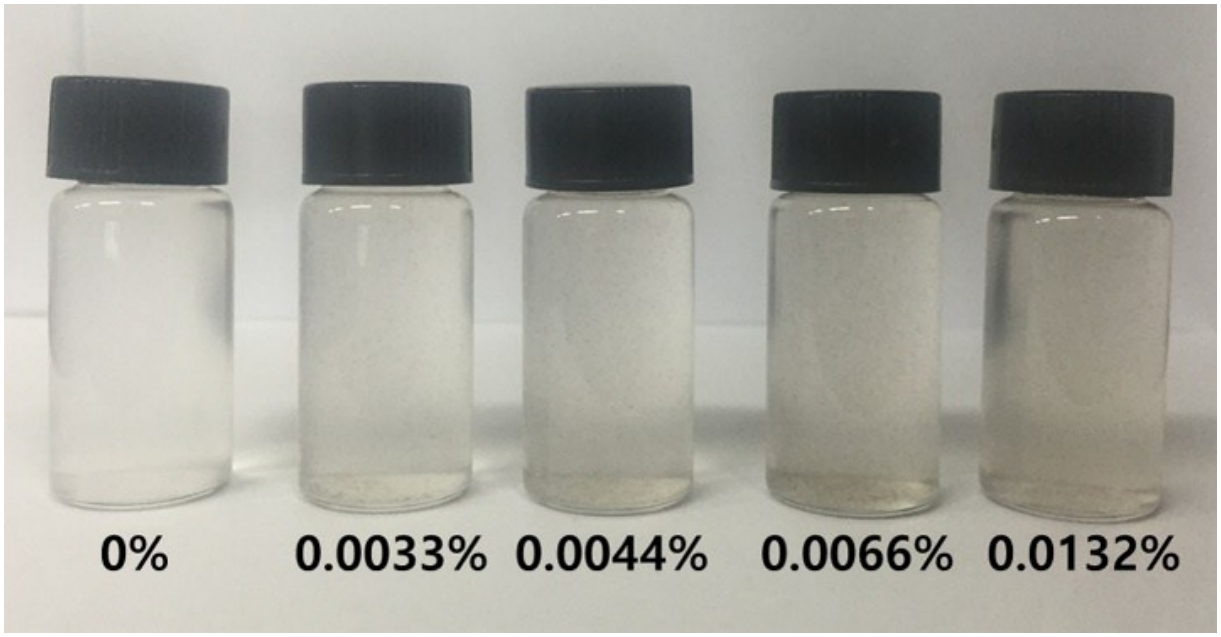

Figure S3. Photographs of solutions of dispersed GO nanosheets in DI water.

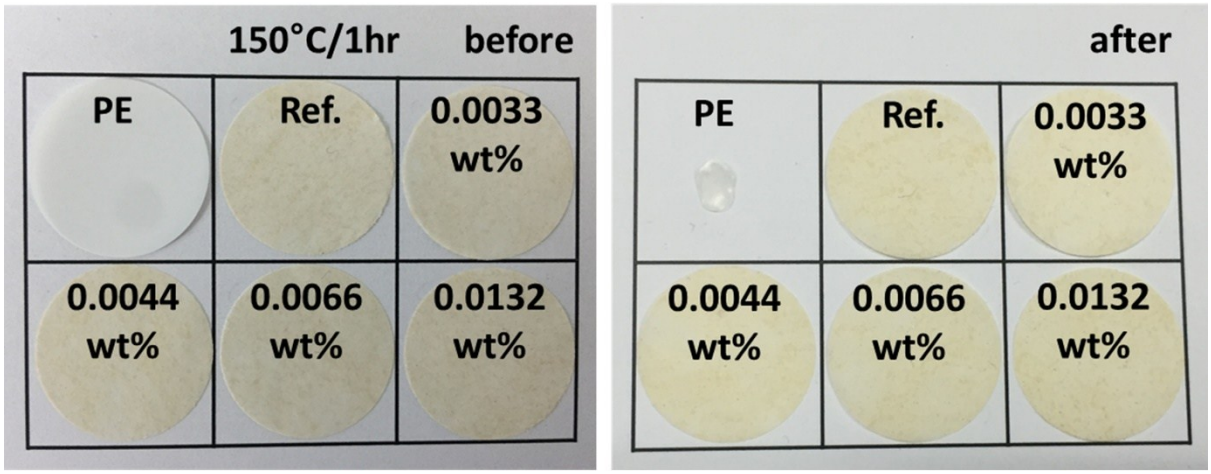

Figure S4. Thermal shrinkage photographs of nanocomposite separators with various contents of exfoliated GO: (left) before and (right) after being stored at 150 °C for 1 hour.