

# Supporting Information

## Thermally Conductive and Electrically Insulating Epoxy Nanocomposites with Thermally Reduced Graphene Oxide-Silica Hybrid Nanosheets

Min-Chien Hsiao,<sup>a</sup> Chen-Chi M. Ma,<sup>a,\*</sup> Jen-Chi Chiang,<sup>a</sup> Kuan-Ku Ho,<sup>a</sup> Tsung-Yu Chou,<sup>b</sup>  
Xiao-Feng Xie,<sup>c</sup> Cheng-Hsun Tsai,<sup>a,d</sup> Li-Hsueh Chang,<sup>a</sup> Chien-Kuo Hsieh,<sup>e,f,\*</sup>

<sup>a</sup> Department of Chemical Engineering, National Tsing Hua University, Hsinchu 30013, Taiwan

<sup>b</sup> Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu, 30013,  
Taiwan

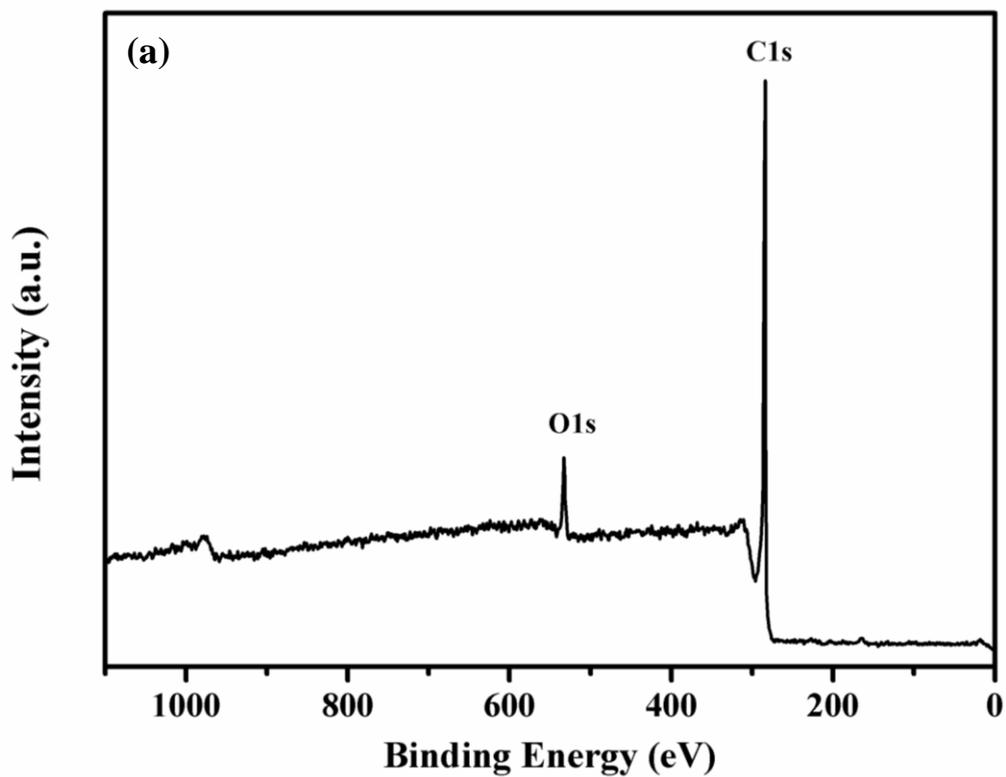
<sup>c</sup> Institute of Nuclear and New Energy technology, Tsinghua University, Beijing 100084, PR China

<sup>d</sup> Chemicals and Chemical Engineering, Chung Shan Institute of Science and Technology, Taoyuan,  
325, Taiwan

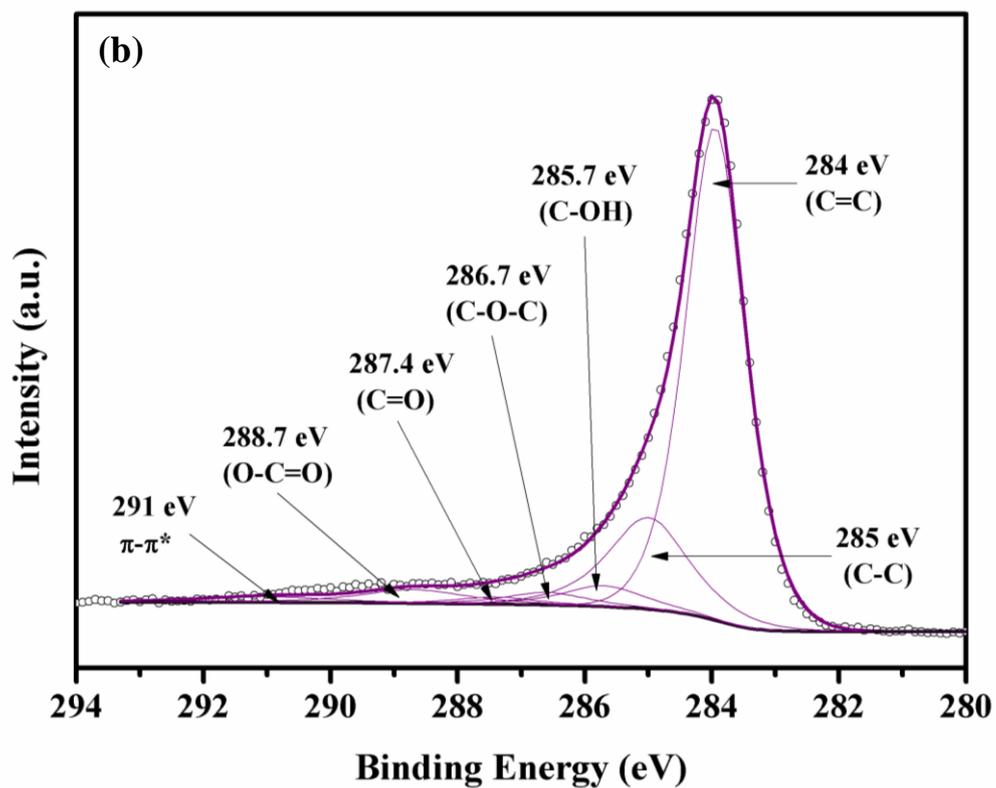
<sup>e</sup> Department of Materials Engineering, Ming Chi University of Technology, New Taipei City 24301,  
Taiwan

<sup>f</sup> Center for Thin Film Technologies and Applications, Ming Chi University of Technology, New  
Taipei City 24301, Taiwan

1



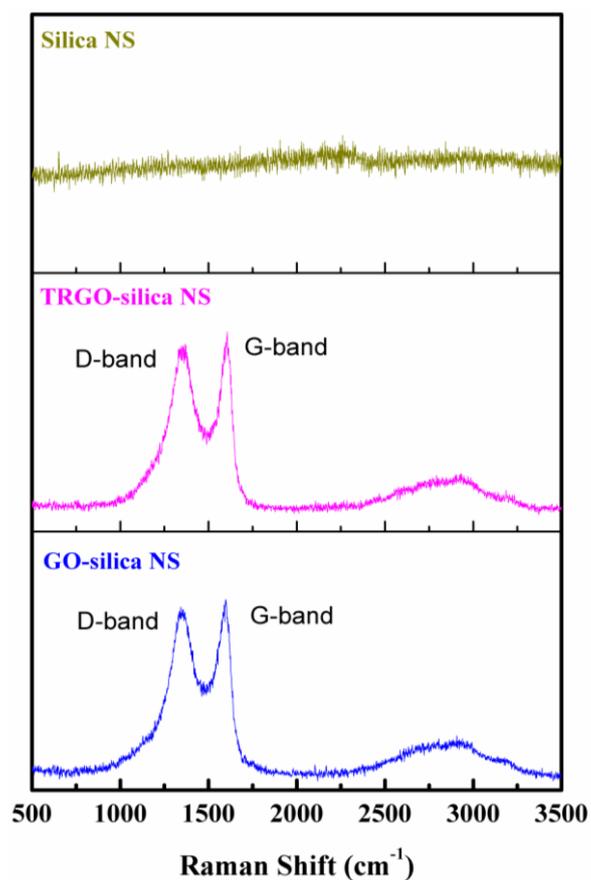
2



3

4

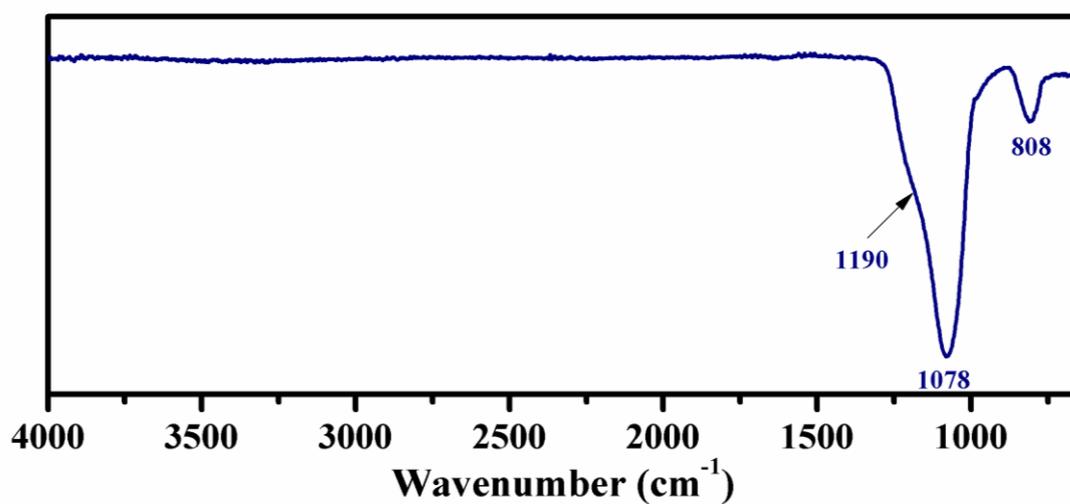
**Figure S1.** XPS spectra of (a) survey scan and (b) C1s for TRGO.



1

2 **Figure S2.** Raman spectra of GO–silica nanosheets (NSs), thermally reduced GO (TRGO)–silica  
3 NSs, and silica NSs.

4

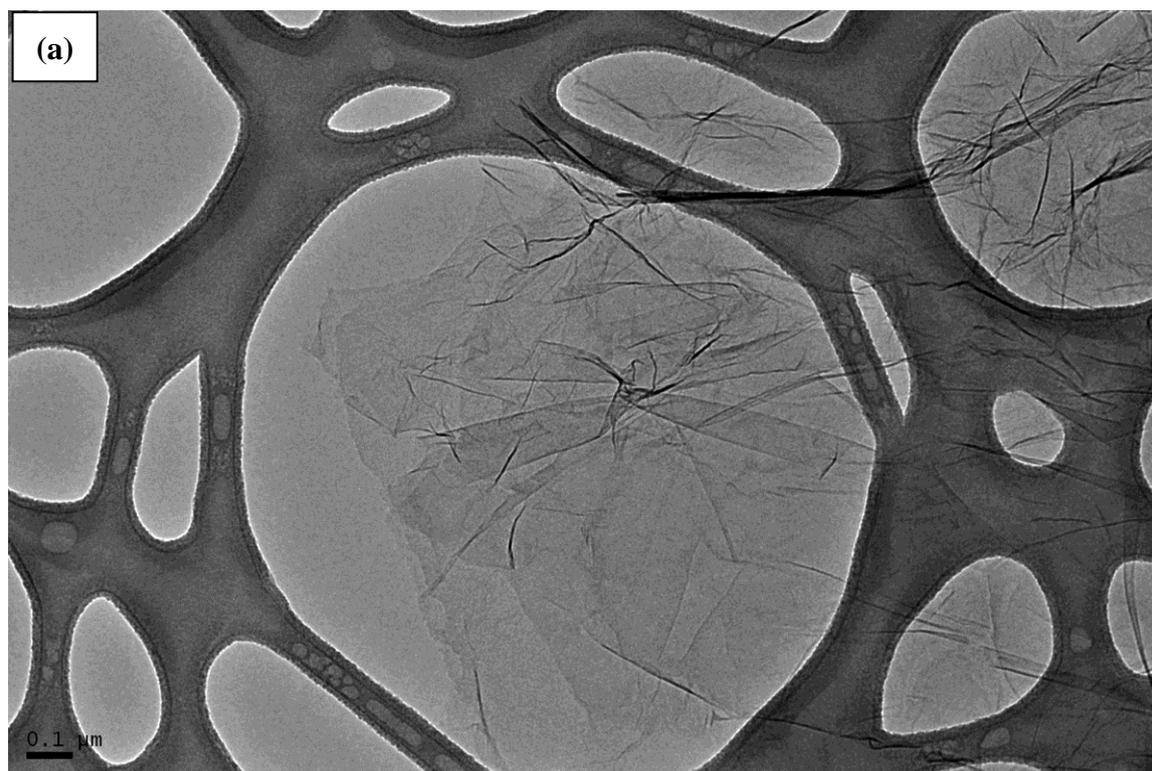


5

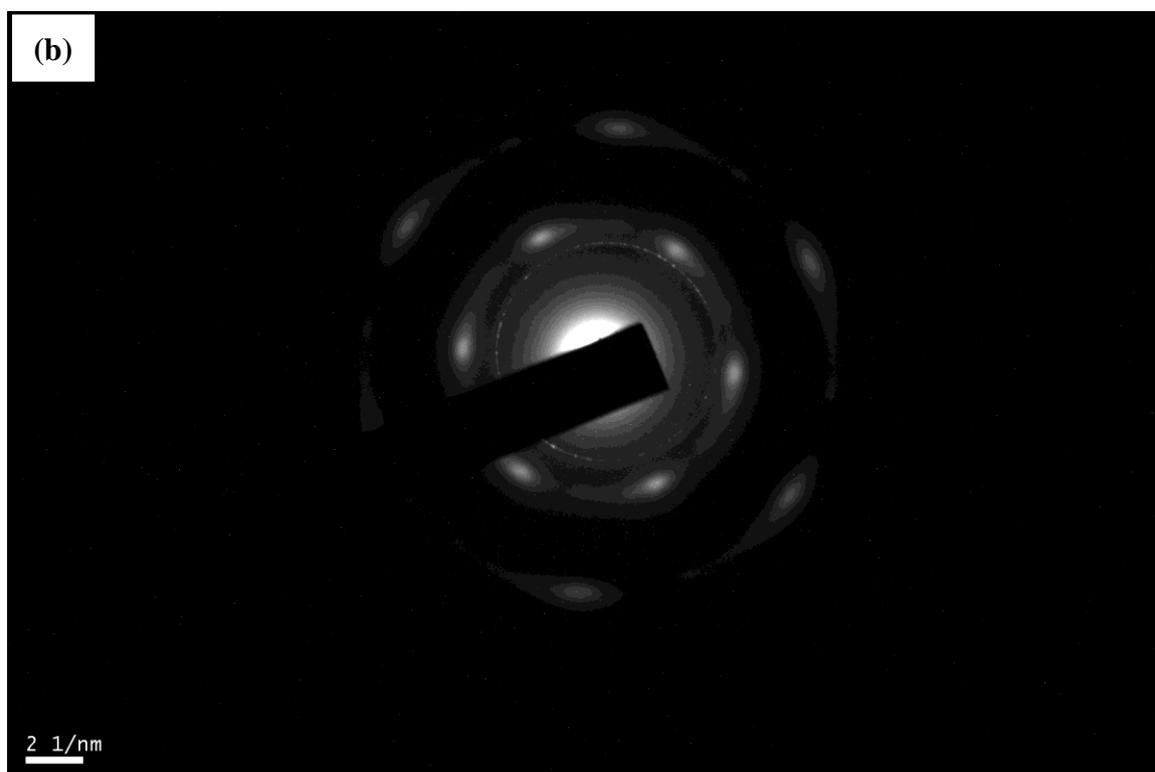
6

**Figure S3.** FT-IR spectra of commercial nano-silica.

1



2



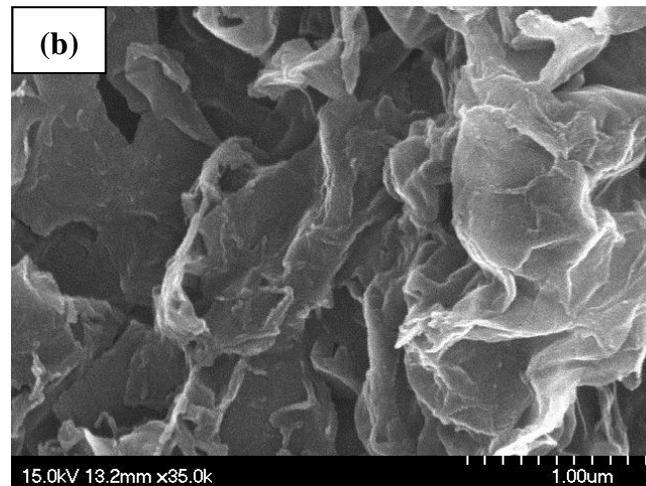
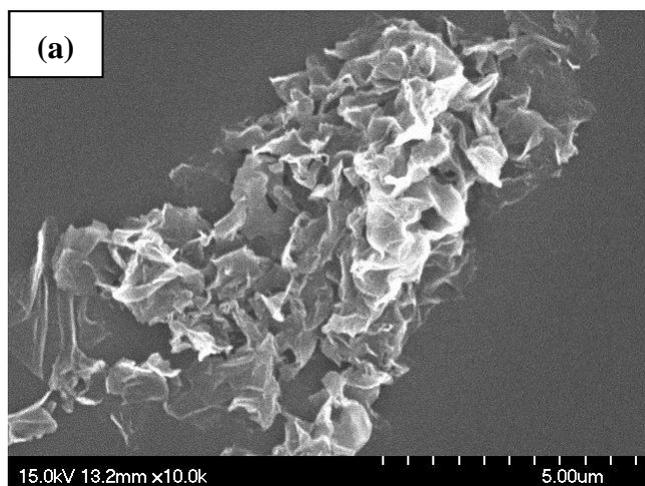
3

4

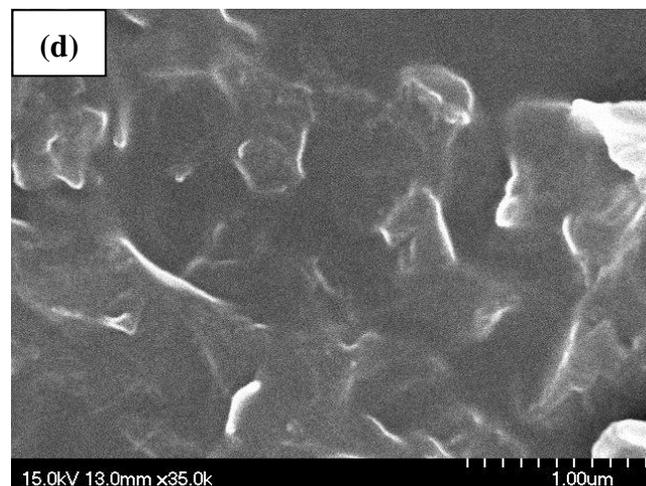
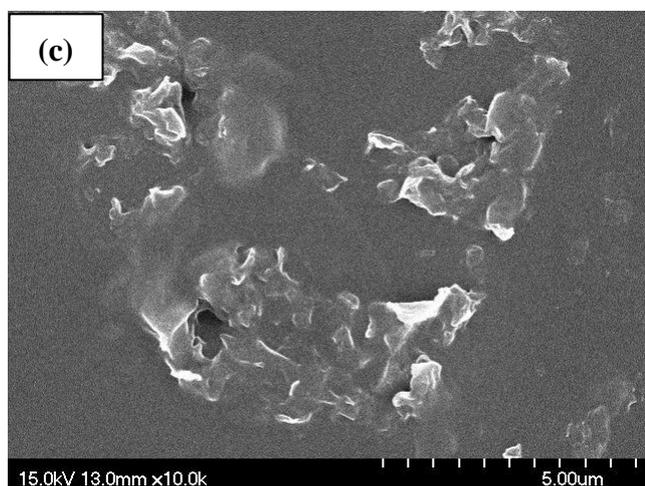
**Figure S4.** (a) TEM image of TRGO, and (b) the corresponding SAED pattern.

5

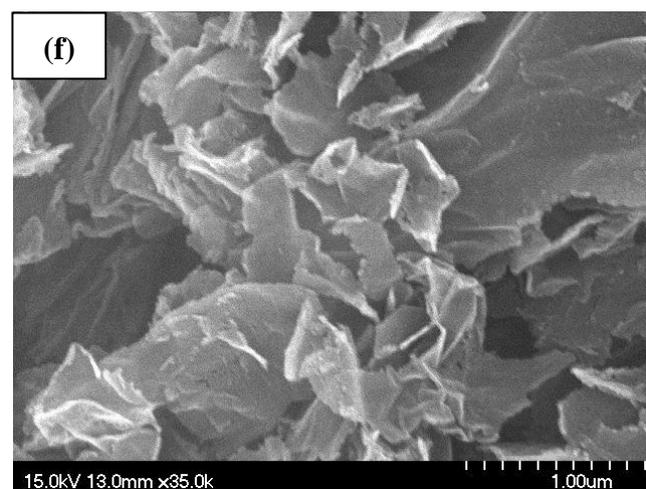
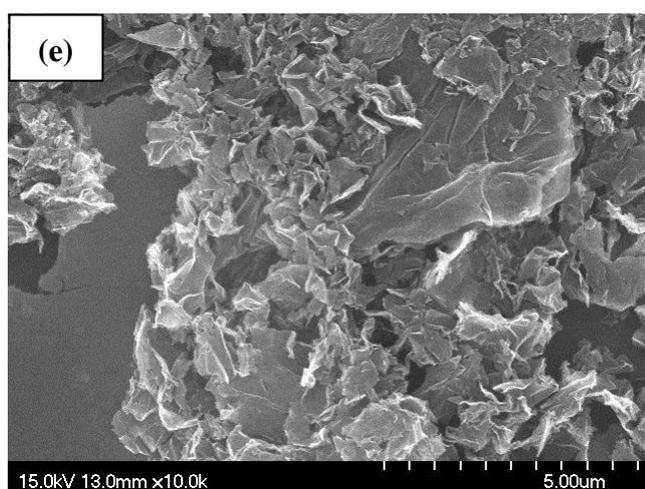
1



2



3



4

5

**Figure S5.** SEM images of (a, b) GO-Silica NS, (c, d) TRGO-Silica NS, and (e, f) Silica NS.