

Electronic Supplementary Information

Synthesis of graphene oxide/sodium silicate nanocomposite using sodium silicate solution†

Jin Seok Choi, Hyun-Kwun Lee, Sung Jin An*

Department of Materials Science and Engineering, Kumoh National Institute of Technology, 61 Daehak-ro, Gumi, 730-701, Korea

* E-mail: sungjinan@kumoh.ac.kr

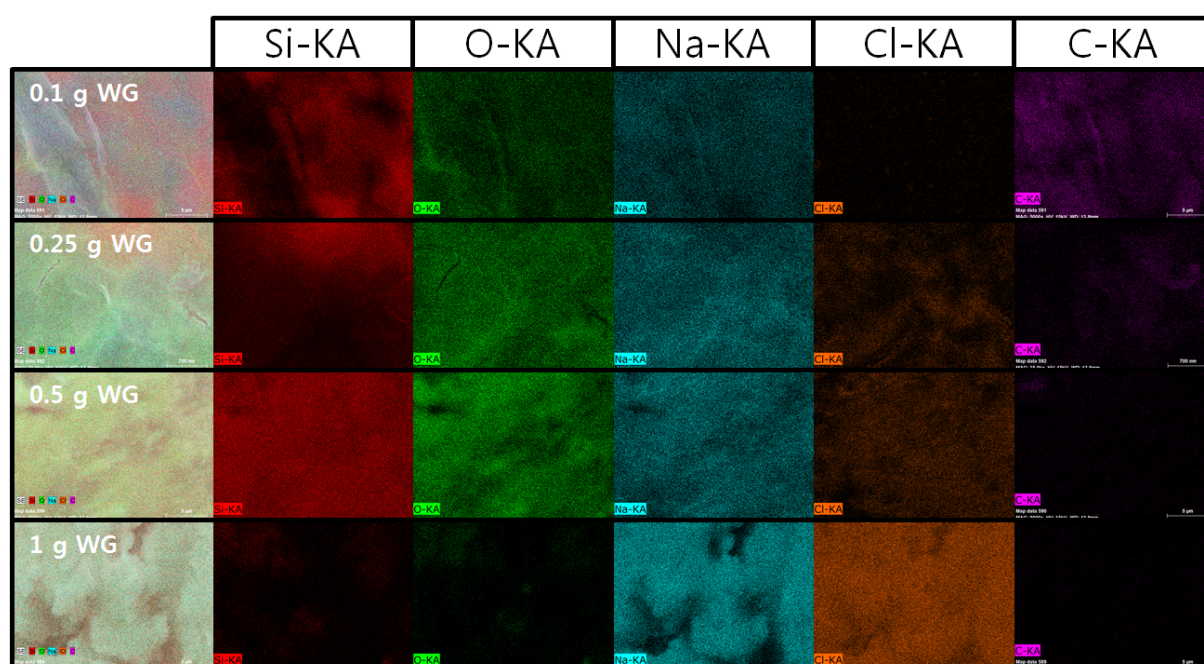


Fig. S1. SEM-EDS elements map images of rG-O/Na₂SiO₃ nanocomposites prepared with different concentrations of WG.

| WG Weight | Si [wt%] | O [wt%] | Na [wt%] | Cl [wt%] | C [wt%] |
|----------------------|-----------------|----------------|-----------------|-----------------|----------------|
| 1 g | - | 1.73 | 37.74 | 60.54 | - |
| 0.5 g | 20.41 | 44.65 | 18.45 | 12.20 | 4.29 |
| 0.25 g | 24.36 | 43.99 | 16.46 | 8.39 | 6.79 |
| 0.1 g | 24.89 | 20.16 | 6.01 | - | 49.94 |

Table S1. Quantitative analysis by EDS point analysis of rG-O/Na₂SiO₃ nanocomposites prepared using different weights of WG.

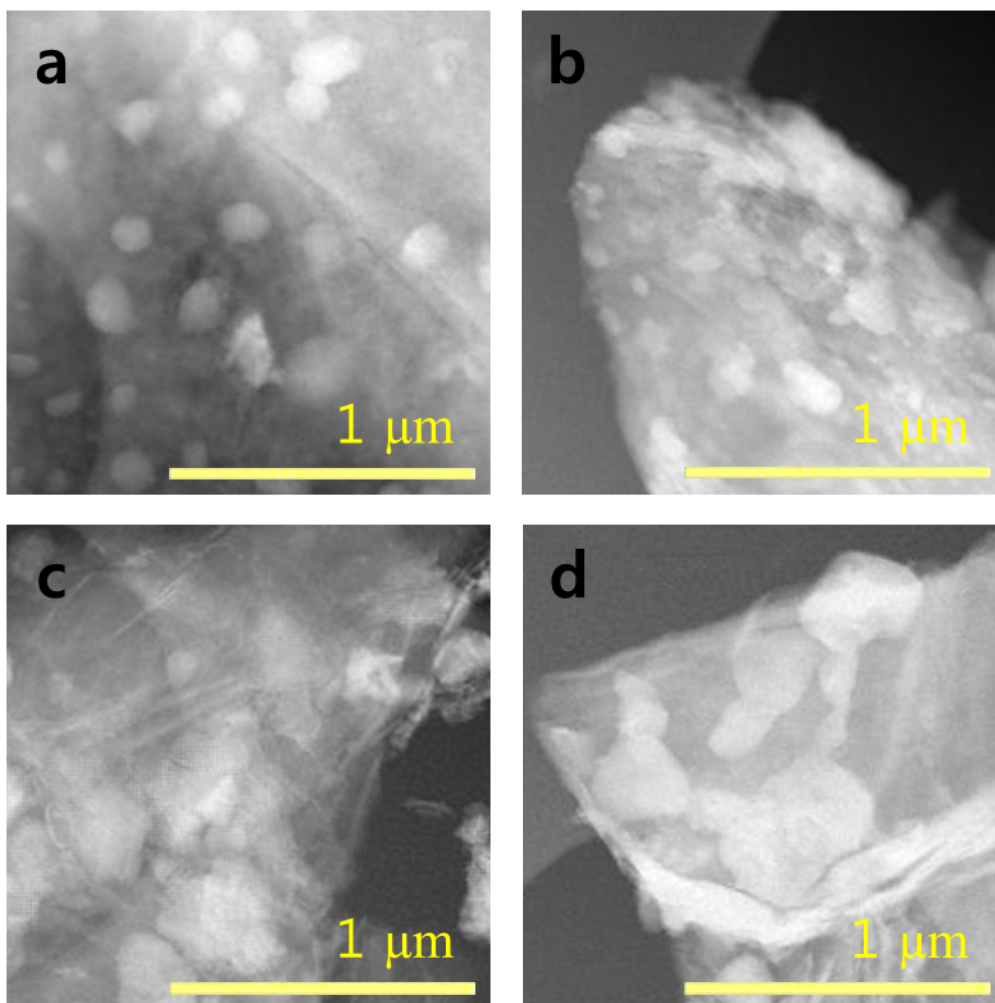


Fig. S2. STEM images of rG-O/Na₂SiO₃ nanocomposites prepared with different concentrations of WG (a) 0.1, (b) 0.25, (c) 0.5, and (d) 1 g, respectively.

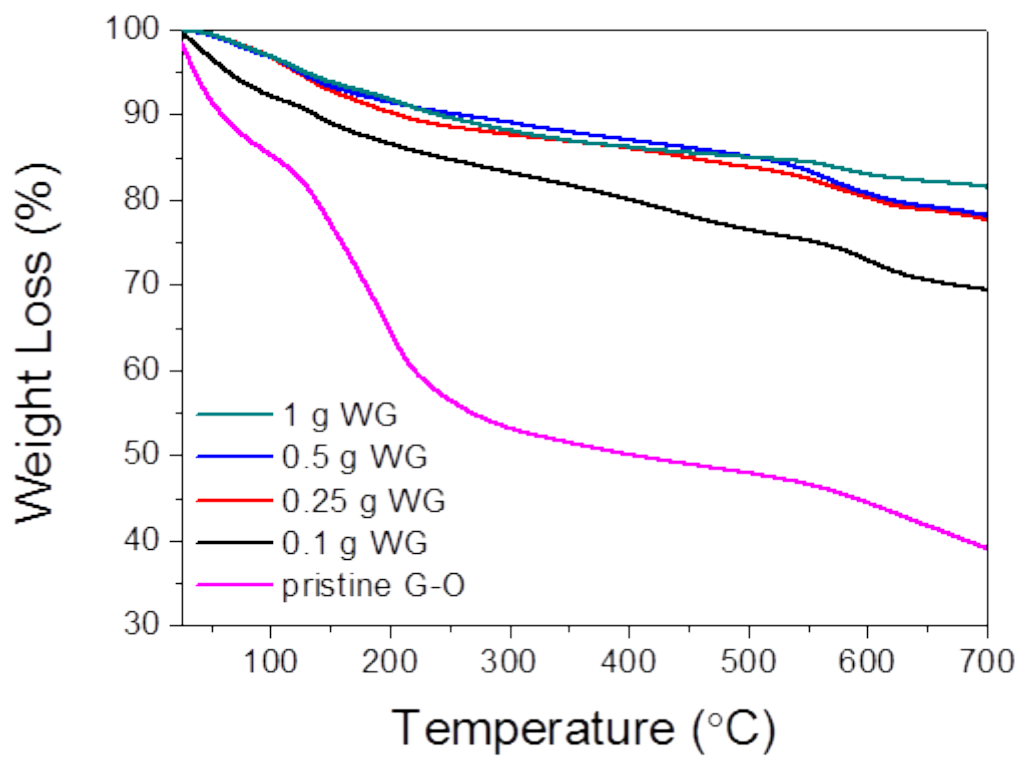


Fig. S3. TGA curves of pristine G-O and G-O/ Na_2SiO_3 nanocomposites prepared with different concentrations of WG.