Supporting Information for

Synthesis, Characterization and Electromagnetic Performance of Nanocomposites of Graphene with α-LiFeO₂ and β-LiFe₅O₈

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Fig. S1 (a) Survey scans for XPS spectra of GO (black), α-LiFeO₂/GN (red), and β-LiFe₅O₈/GN (green) nanocomposites. C 1s peaks of (b) GO, (c) α-LiFeO₂/GN, and (d) β-LiFe₅O₈/GN nanocomposites.

In the XPS spectra (Fig. S1a), the main peaks observed in the survey scans of the two nanocomposites are C 1s, O 1s, and Fe 2p, Li 1s/Fe 3p (the peaks of Li 1s and Fe 3p overlap) peaks centered at ca. 285, 530, 710 and 55 eV, respectively. The XPS spectra of C 1s for GO in Fig. S1b could be identified into C entities, corresponding to single or double bonds in aromatic rings [i.e., C−C (sp² carbon, C1), C−O (C2), C=O (C3), C(O)O (C4) bonds] with a binding energy of about 284.7, 286.8, 287.6 and 288.9 eV, respectively. As shown in Figs. S1 c and d, the C4 peaks located at 288.9 eV disappeared in nanocomposites, meanwhile, the C2 peaks located at 286.0 eV and C3 peaks located at 288.3/287.9 eV became prominently weaker, confirming the effective conversion of most sp³ hybridized carbon atoms of GO to sp² hybridized carbons.