Supplementary Information

Injection molded microcellular PLA/graphite nanocomposite with dramatically enhanced mechanical and electrical properties for ultra-efficient EMI shielding applications

Guilong Wang,*a Guoqun Zhao,*a Sai Wang,b Lei Zhang*a and Chul B. Park*b

a Key Laboratory for Liquid-Solid Structural Evolution and Processing of Materials (Ministry of Education), Shandong University, Jinan, Shandong 250061, China
b Microcellular Plastics Manufacturing Laboratory, Department of Mechanical and Industrial Engineering, University of Toronto, Toronto, Ontario M5S 3G8, Canada

*To whom correspondence should be addressed.

Email: guilong@sdu.edu.cn, park@mie.utoronto.ca, zhaogq@sdu.edu.cn.

Content:

Fig. S1 SEM image of the flake-shaped nanographite: (a) ×2000 and (b) ×10000.

Fig. S2 Dependence of (a) the real part (ε') and (b) the imaginary part (ε'') of the complex permittivity of the solid and foamed samples on frequency ranging from 0.1 Hz to 10⁵ Hz.
**Fig. S1** SEM image of the flake-shaped nanographite: (a) ×2000 and (b) ×10000.

**Fig. S2** Dependence of (a) the real part ($\varepsilon'$) and (b) the imaginary part ($\varepsilon''$) of the complex permittivity of the solid and foamed samples on frequency ranging from 0.1 Hz to $10^5$ Hz.