Supplementary Material

A facile freeze-thaw ultrasonic assisted circulation method of graphite flakes prepared by anode graphite from spent lithium-ion batteries for application in nanofluids

Yu Qiao, Wen Sheng, Chen He, Bai Yang, Haoxuan Xu, Chenzhen Liu, Zhonghao Rao* Corresponding author. Tel.: +86 15094355485 E-mail address: raozhonghao@cumt.edu.cn

School of Electrical and Power Engineering, China University of Mining and Technology, Xuzhou, 221116, China.



Figure S1. XRD images of graphite materials



Figure S2. FT-IR images of anode graphite materials from spent lithium-ion batteries and DTGF.

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Name	OTGF	DTGF
BET Surface Area	$13.9191 \pm 1.1029 \text{ m}^2/\text{g}$	$16.6113 \pm 2.1742 \text{ m}^2/\text{g}$
Slope	$0.262279 \pm 0.024454 \text{ g/cm}^3 \text{ STP}$	$0.140497 \pm 0.033629 \text{ g/cm}^3 \text{ STP}$
Y-Intercept	$0.050428 \pm 0.003996 \text{ g/cm}^3 \text{ STP}$	0.121529 ± 0.006731 g/cm ³ STP
Qm	3.1979 cm³/g STP	3.8164 cm ³ /g STP
Correlation	0.0780500	0.0472027
Coefficient	0.9789509	0.9472027
Molecular Cross-	0 1620 nm2	0.1620 mm ²
Sectional Area	0.1020 IIII2	0.1020 mm

Table S1. BET report of OTGF and DTGF