Supplementary Information

Tree-inspired radially aligned, bimodal graphene frameworks

for highly efficient and isotropic thermal transport

Zheng Bo, Hanrui Zhu, Chongyan Ying, Huachao Yang[⊠], Shenghao Wu, Jing Kong, Shiling Yang, Xiu Wei, Jianhua Yan and Kefa Cen

State Key Laboratory of Clean Energy Utilization, Institute for Thermal Power Engineering, College of Energy Engineering, Zhejiang University, Hangzhou, Zhejiang Province, 310027, China. Email: huachao@zju.edu.cn; fax: +86 571 87951369; Tel: +86 571 87951369
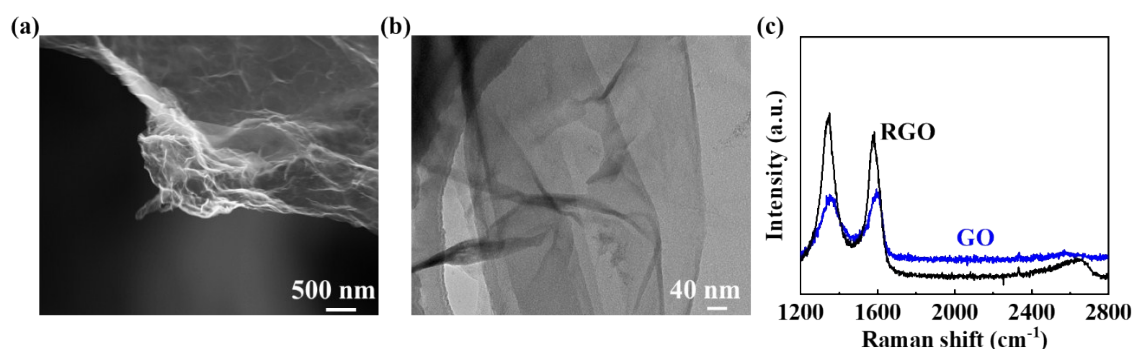

Figure S1. Characterization of GO sheet. (a) SEM image and (b) TEM image of GO sheet. (c) Raman spectra of GO sheet (blue line) and RGO sheet (black line).
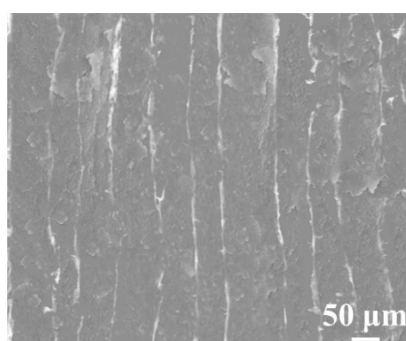

Figure S2. SEM image of RG-Fin/PMMA sample.

Table S1. Thermal diffusivity (α), specific heat capacity (c) and density (ρ) of tested samples.

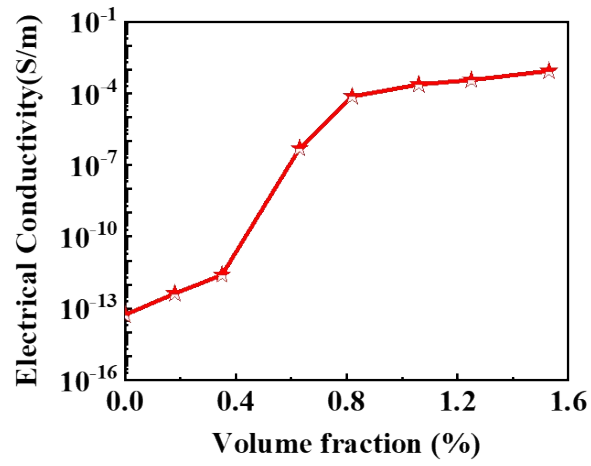| sample	vol%	α (mm²/s)	c (J/(g·K))	ρ (g/cm³)	k (W/(m·K))
#1	0.18	0.136	1.456	1.184	0.234
#2	0.35	0.189	1.456	1.186	0.326
#3	0.63	0.656	1.456	1.187	1.134
#4	0.82	1.127	1.455	1.191	1.952
#5	0.91	1.230	1.455	1.191	2.131
#6	1.06	1.403	1.455	1.192	2.432

Figure S3. Electrical conductivity of sample as a function of volume loading.