

煤基碳泡沫/聚氨酯相变复合材料的制备及储热性能

吴文昊¹ 黄心宇¹ 姚锐敏¹ 陈人杰¹ 李凯²

邹如强^{1,*}

(¹北京大学工学院材料科学与工程系, 北京 100871; ²北京防化研究院第一研究所, 北京 100191)

Synthesis and Properties of Polyurethane/Coal-Derived Carbon Foam Phase Change Composites for Thermal Energy Storage

WU Wen-Hao¹ HUANG Xin-Yu¹ YAO Rui-Min¹ CHEN Ren-Jie¹ LI Kai²

ZOU Ru-Qiang^{1,*}

(¹Department of Materials Science and Engineering, College of Engineering, Peking University, Beijing 100871, P. R. China; ²Research Institute of Chemical Defence, Beijing 100191, P. R. China)

*Corresponding author. Email: rzou@pku.edu.cn; Tel: +86-10-62760532.

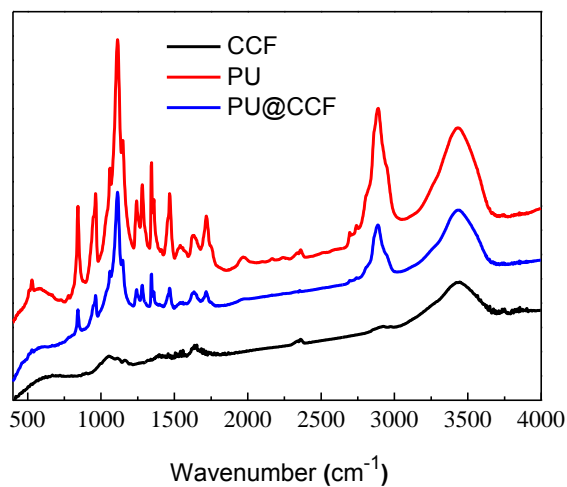


图 S1 碳炭泡沫、聚氨酯和 PU@CCF 复合材料的傅里叶变换红外光谱
 Fig.S1 FT-IR spectra of carbon foam, PU and PU@CCF composite

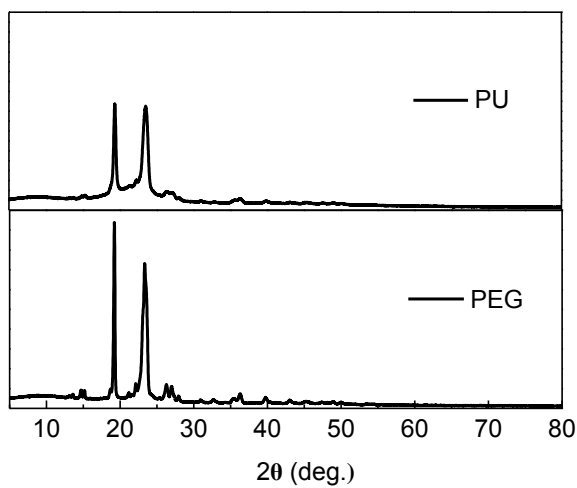


图 S2 聚氨酯和 PEG-6000 的粉末 XRD 图
 Fig.S2 Powder XRD patterns of PU and PEG-6000

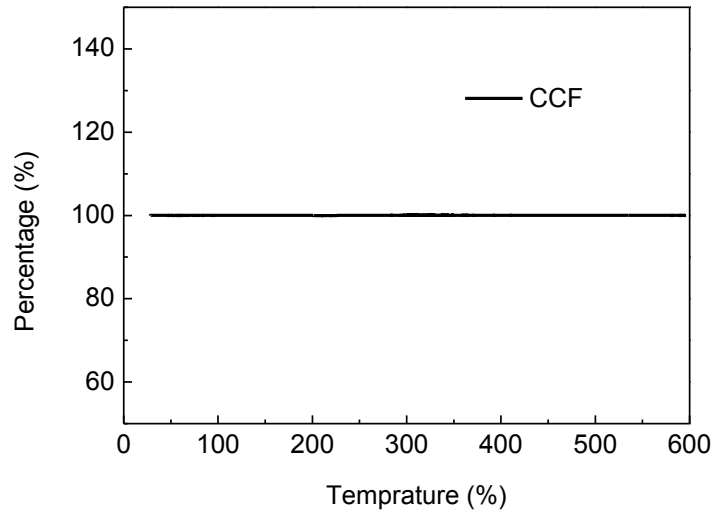


图 S3 煤基炭泡沫热重分析
Fig.S3 TGA curve of CCF

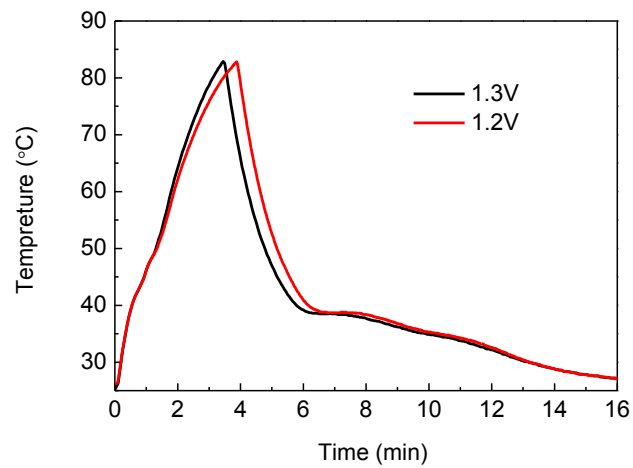


图 S4 PU@CCF 在负载电压为 1.2 和 1.3 V 时的电热转换性能
Fig.S4 Electro-heat conversion of PU@CCF under 1.2 and 1.3 V