

Supporting Information

Graphene with the KI-modified pore structure and its electrochemical capacitor application

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NEW CARBON MATERIALS

表 S1 基于 XPS 测量的 G、KIG-12.5、KIG-25、KIG-37.5 的元素及对应含量

Table S1 Element content in G, KIG-12.5, KIG-25 and KIG-37.5 by XPS

at%	G	KIG-12.5	KIG-25	KIG-37.5
C	94.22	93.74	88.91	71.56
O	5.78	4.96	5.56	7.63
K	/	0.38	2.18	9.76
I	/	0.91	3.35	11.06

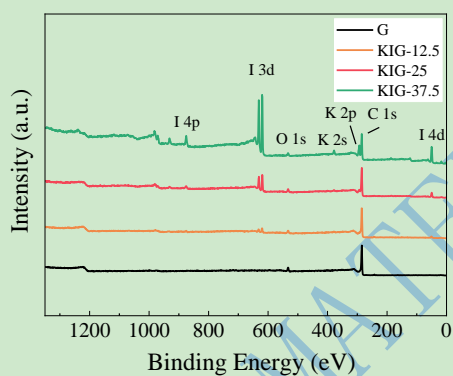


图 S1 样品 G、KIG-12.5、KIG-25 和 KIG-37.5 的 X 射线光电子能谱全谱。

Fig. S1 XPS spectra of G, KIG-12.5, KIG-25 and KIG-37.5.

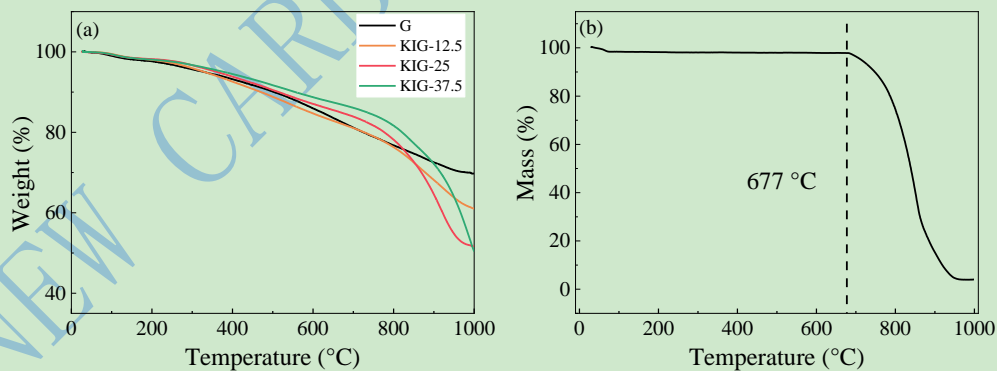


图 S2 (a) G、KIG-12.5、KIG-25、KIG-37.5 和 (b) 碘化钾的热重曲线。

Fig. S2 Thermogravimetric analysis curves of (a) G, KIG-12.5, KIG-25 and KIG-37.5 and (b) KI

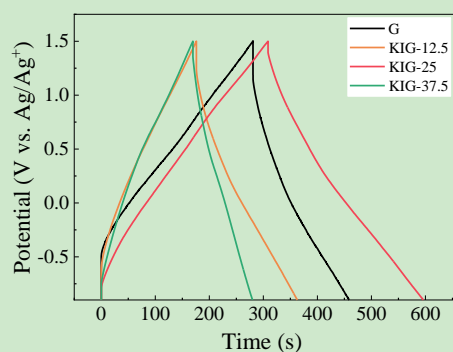


图 S3 G、KIG-12.5、KIG-25 和 KIG-37.5 的恒流充放电曲线（电流密度为 1 A g^{-1} ）

Fig. S3 Galvanostatic charge-discharge curves of G, KIG-12.5, KIG-25 and KIG-37.5 at current density of 1 A g^{-1} .

表 S2 基于奈奎斯特图拟合的阻抗单元

Table S2 The resistor elements of four capacitors derived from Nyquist plots

	G	KIG-12.5	KIG-25	KIG-37.5
R_s	0.96	1.14	1.12	1.26
R_c	153.20	76.04	54.86	58.31
R_w	80.30	72.56	19.40	13.74

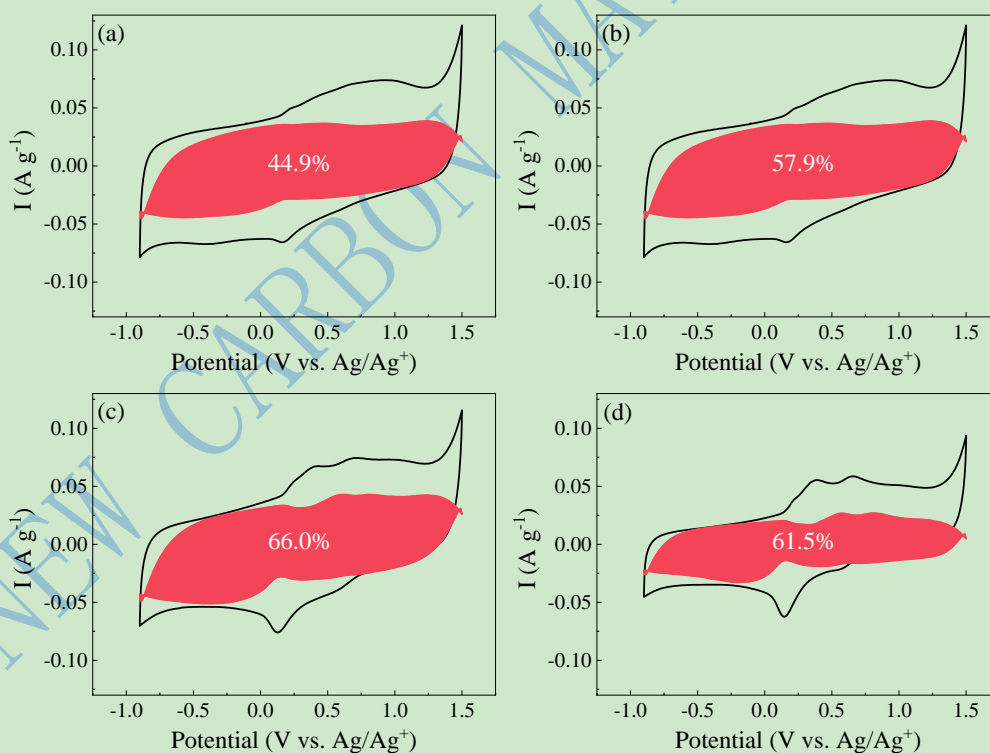


图 S4 G、KIG-12.5、KIG-25 和 KIG-37.5 的整体电流中电容贡献（扫描速度为 0.5 mV s^{-1} ）

Fig. S4 Capacitive (red) contribution to charge storage of G, KIG-12.5, KIG-25 and KIG-37.5 at 0.5 mV s^{-1} .