

Supplementary Materials

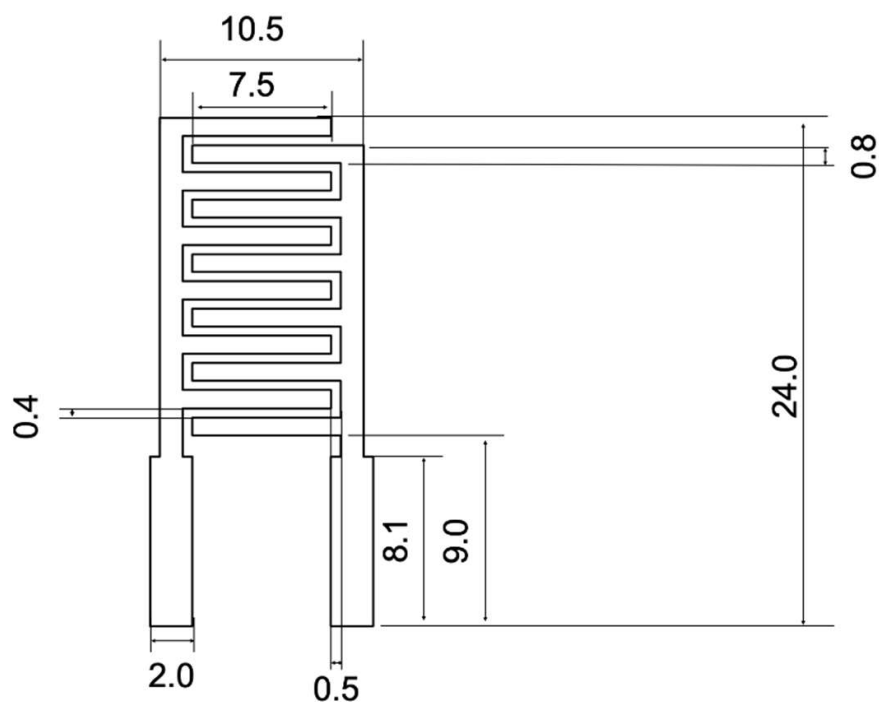
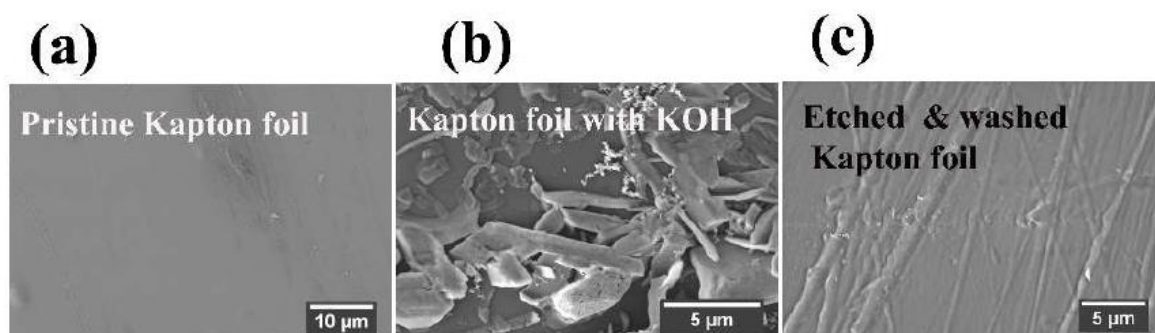


Figure S1. Details of the technical drawing of the template of the applied IMSC cell geometry (unit in mm).



Etching process

Figure S2. SEM images of the surface changing due to the KOH etching process of PI-foil: (a) pristine PI foil, (b) PI foil with dried KOH and (c) after etching and washing process of PI-foil.

Table S1: Some values calculated from GCD curves of this LIG-MSC device.

Current Density (mA/cm ²)	Discharge time (s)	Using Eq. (2-4)			Using Eq. (6-8)		
		Areal capacitance C _A (mF/cm ²)	Areal Energy density E _A (μWh/cm ²)	Areal Energy density P _A (mW/cm ²)	Sp. capacitance C _m (mF/g)	Sp. Energy density E _m (mWh/kg)	Sp. Power density P _m (W/kg)
0.03	30.75	0.461	0.256	0.029	166.1	92.25	10.81
0.05	17.86	0.446	0.248	0.049	160.7	89.28	17.99
0.07	12.04	0.421	0.234	0.069	151.7	84.27	25.19
0.10	7.66	0.383	0.212	0.110	137.8	76.56	35.97

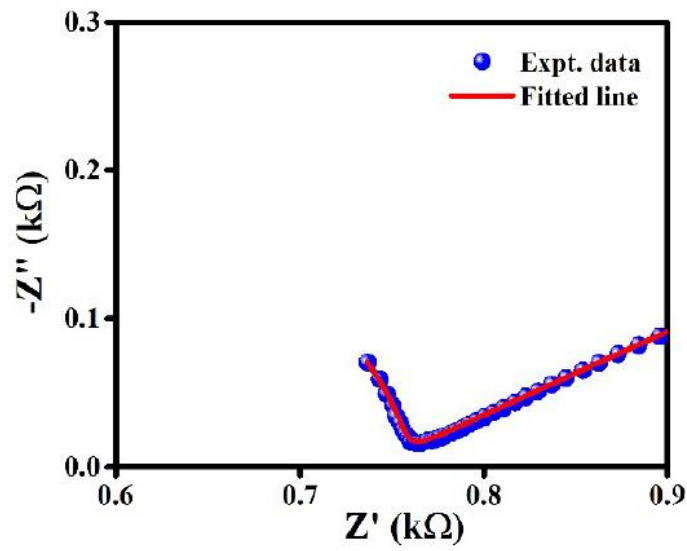


Figure S3. EIS image at high frequency region of this LIG-MSC device.