Supplementary Information

Highly Conductive, Conformable Ionic Laser-induced Graphene Electrodes for Flexible Iontronic Devices

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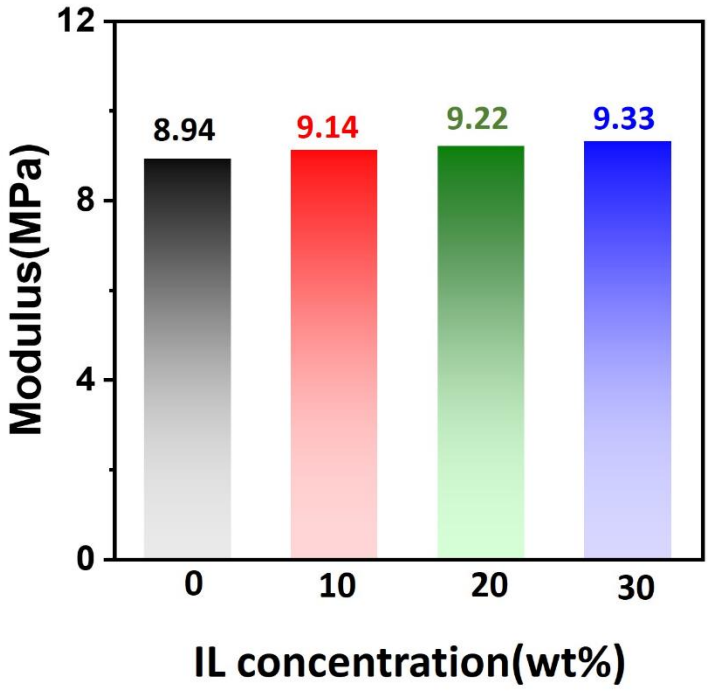
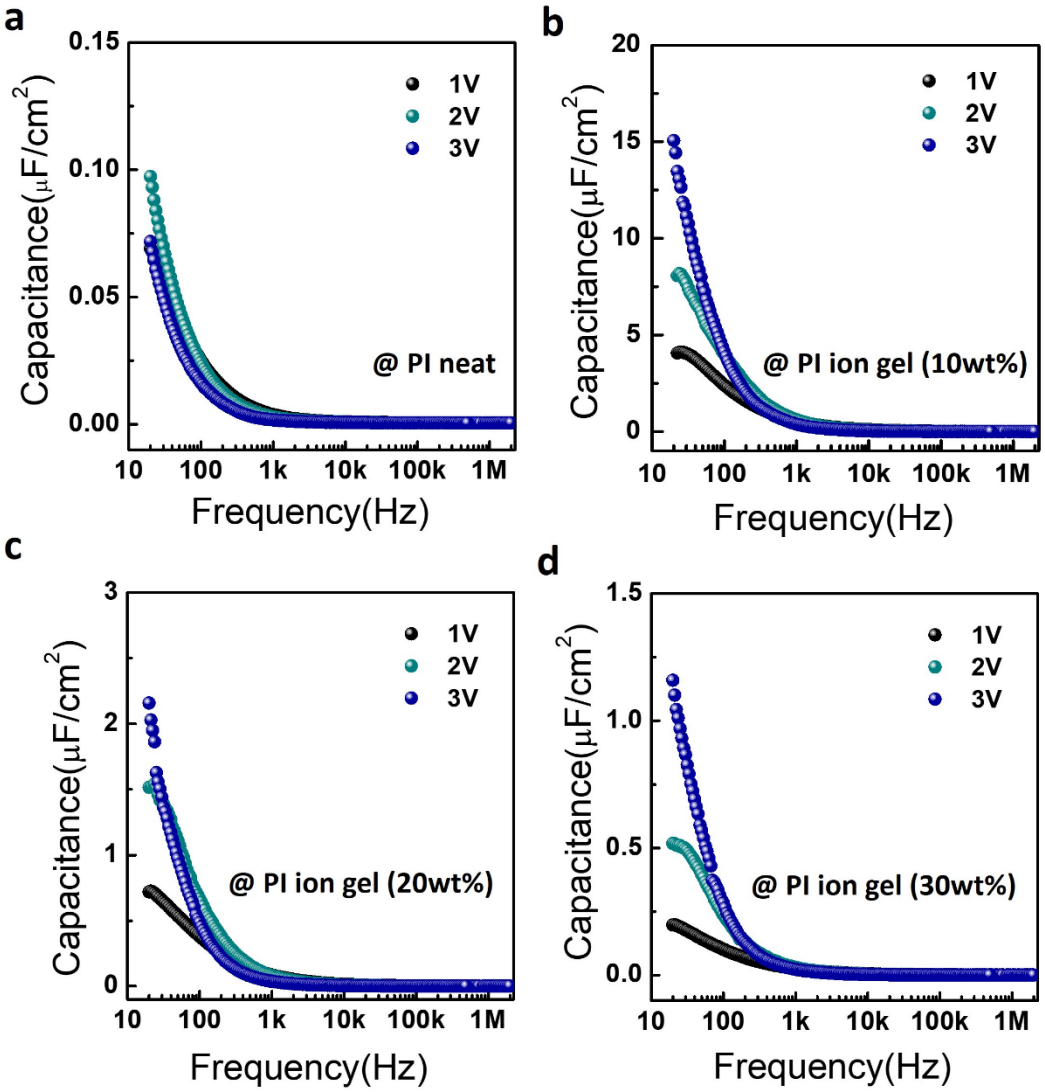
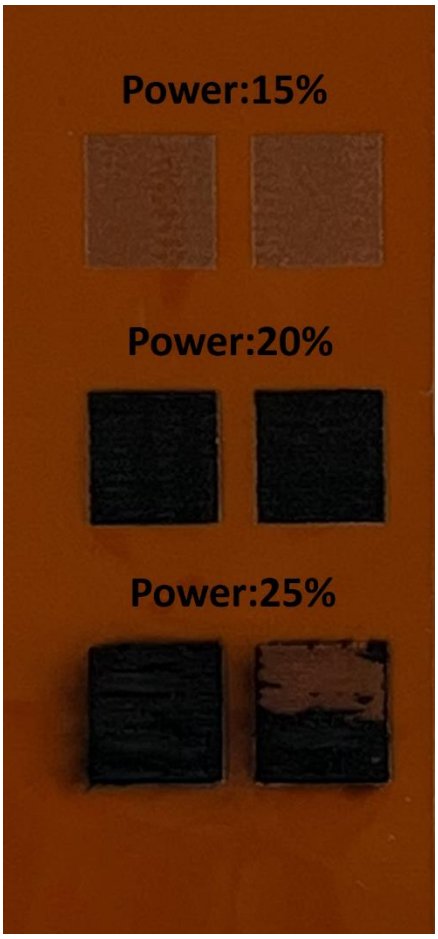


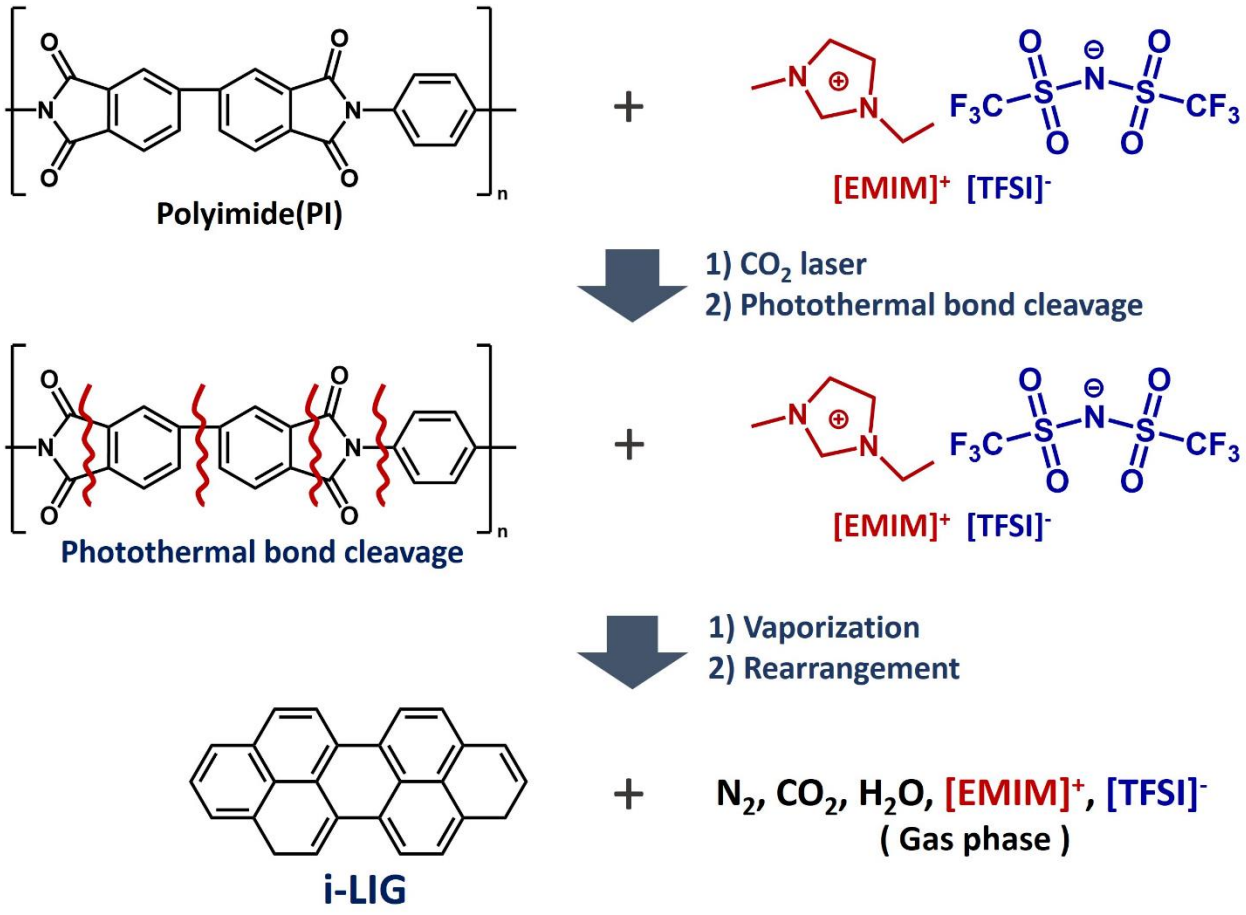
Supplementary Figure S1. Mechanical properties of PI ion gel with different ILs contents (0-30wt%).



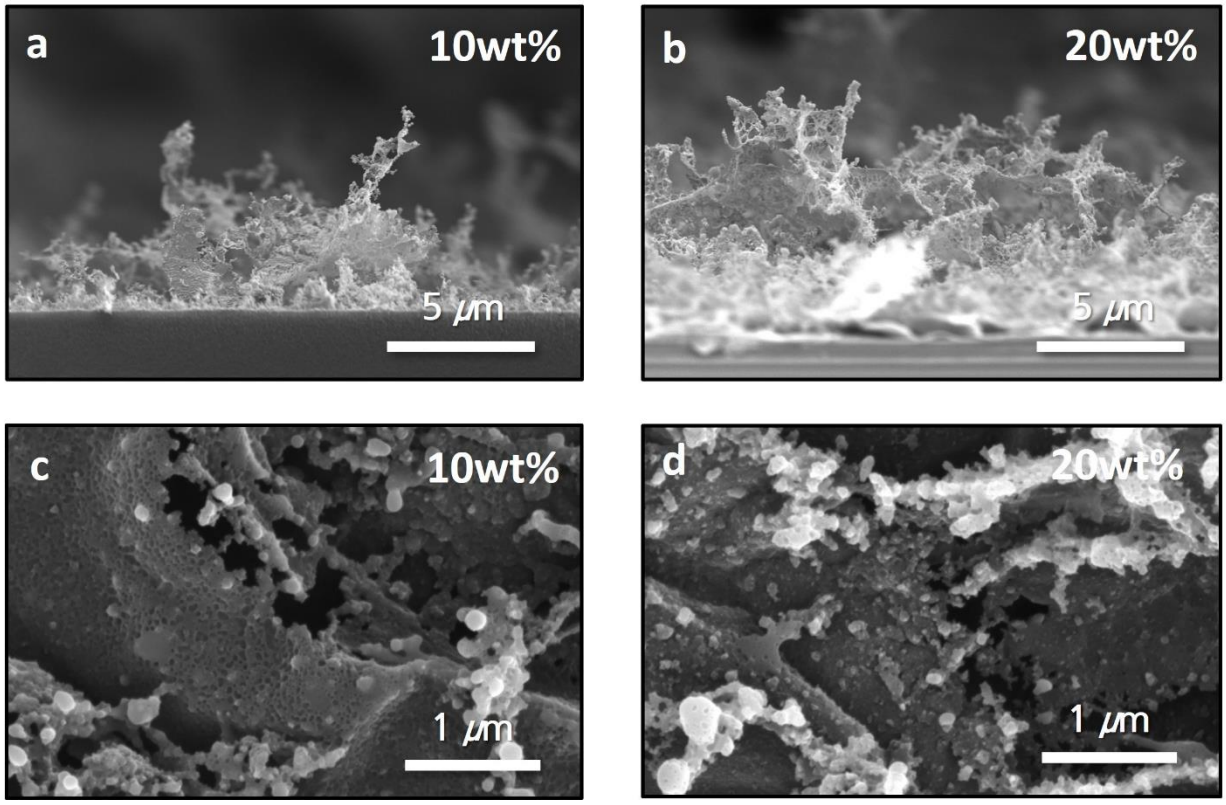
Supplementary Figure S2. Capacitance-frequency of PI ion with varying concentrations of ILs (0-30 wt%). (a) PI neat film (b) PI ion gel with 10wt% of ILs (c) PI ion gel with 20wt% of ILs (d) PI ion gel with 30wt% of ILs .



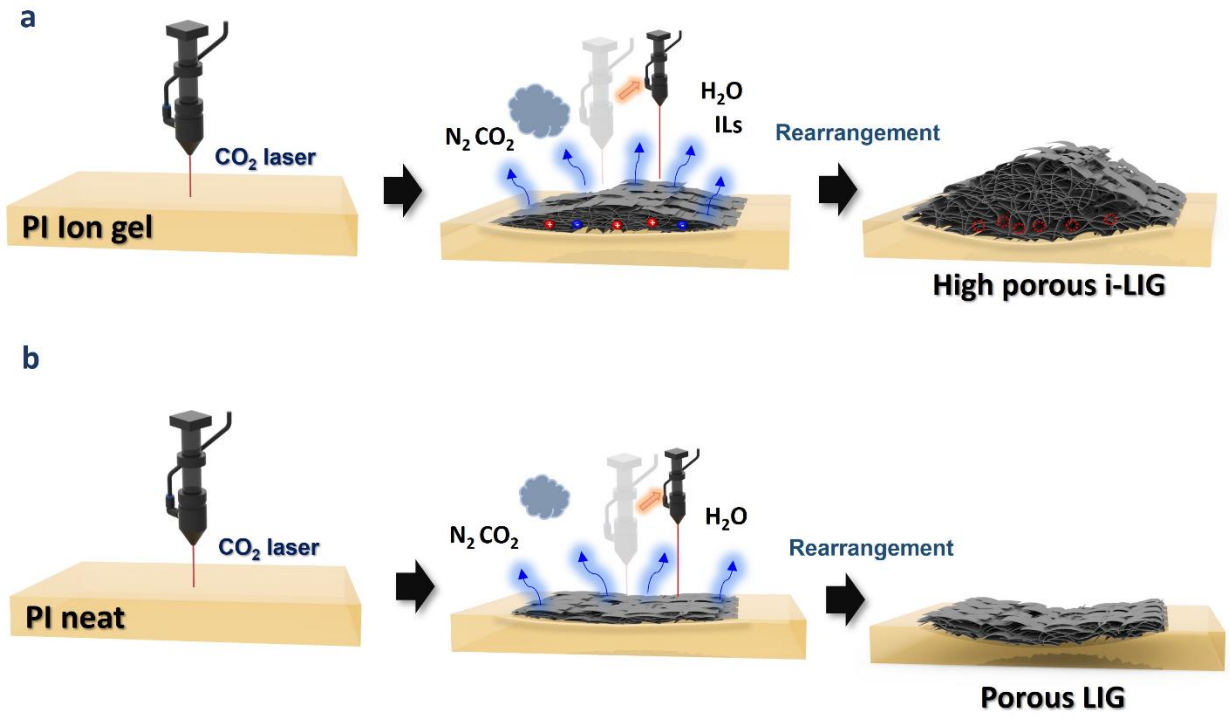
Supplementary Figure S3. Photograph of i-LIG with varying CO_2 laser power (15%, 20%, 25%).



Supplementary Figure S4. Mechanism schematic of conversion LIG from PI ion gel.



Supplementary Figure S5. Morphological analysis of i-LIGs. Schematic representations Cross-sectional SEM images of (a) i-LIG with 10 wt% of ILs and (b) i-LIG with 20 wt% of ILs. Top view SEM images of (c)) i-LIG with 10 wt% of ILs and (d)) i-LIG with 20 wt% of ILs.



Supplementary Figure S6. Mechanism schematic of producing LIG mechanism from (a) PI ion gel and (b) PI neat