

## Supporting Information

### Self-healable Triboelectric Nanogenerators based on Ionic Poly(Hindered Urea) Network Materials Cross-linked with Fluorinated Block Copolymers

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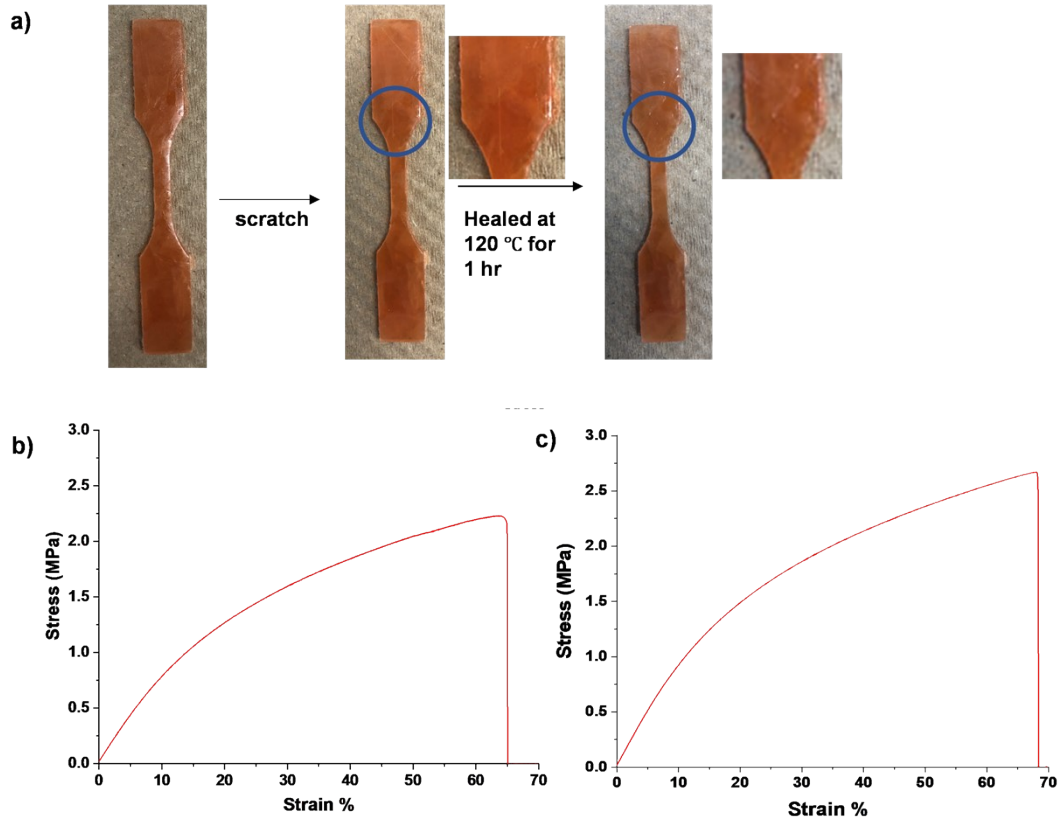
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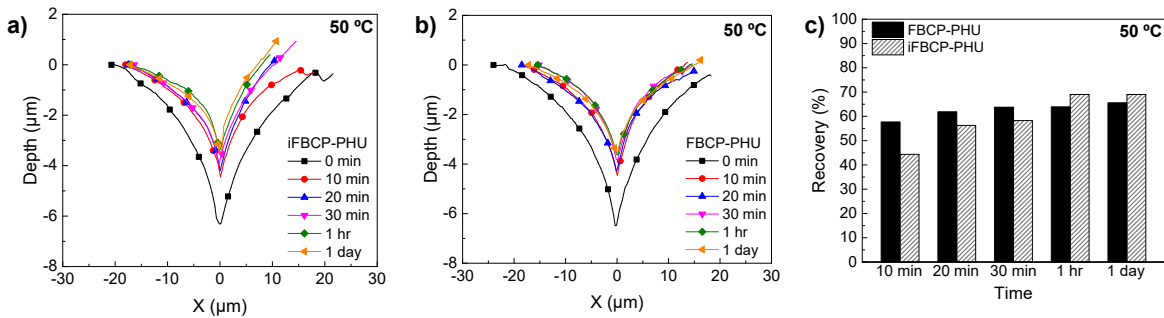
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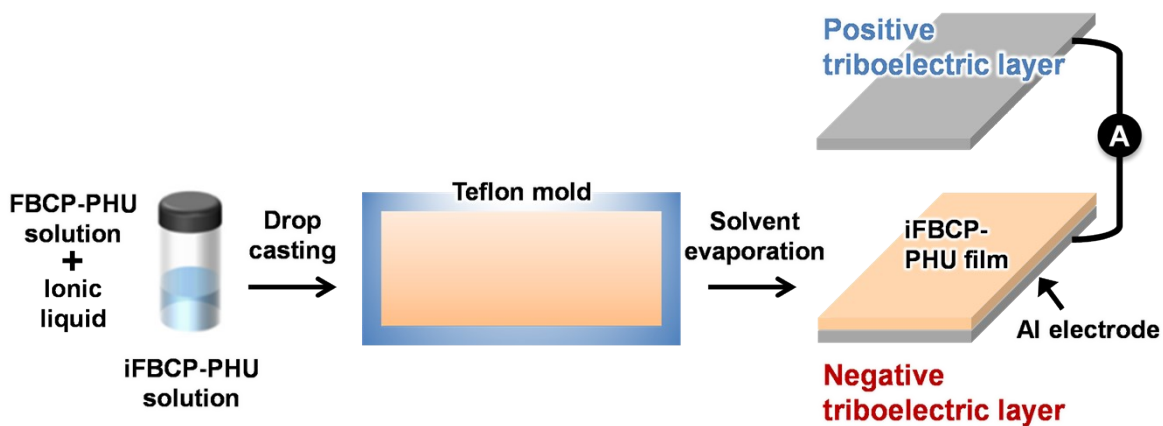
**Figure S1.** Digital images of tensile specimens (a) as well as stress-strain curves before (b) and after (c) heating at 120 °C for 1 hr. Note that the blue-colored circles show the scratch made with a razor before and after annealing.



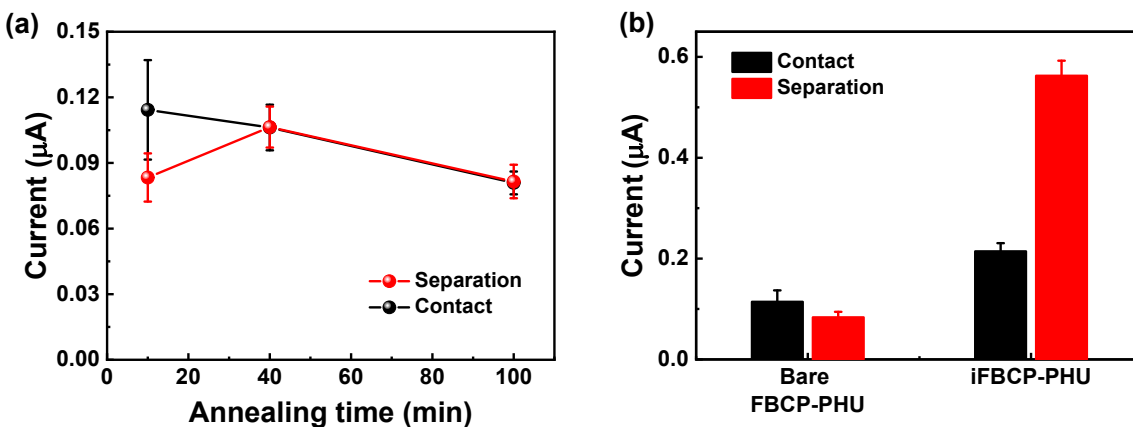
**Figure S2.** Comparison of temporal scratch profiles for iFBCP-PHU (a) and FBCP-PHU (b) films at 50 °C during annealing time of 1 day; Percent recovery data for two films (c).



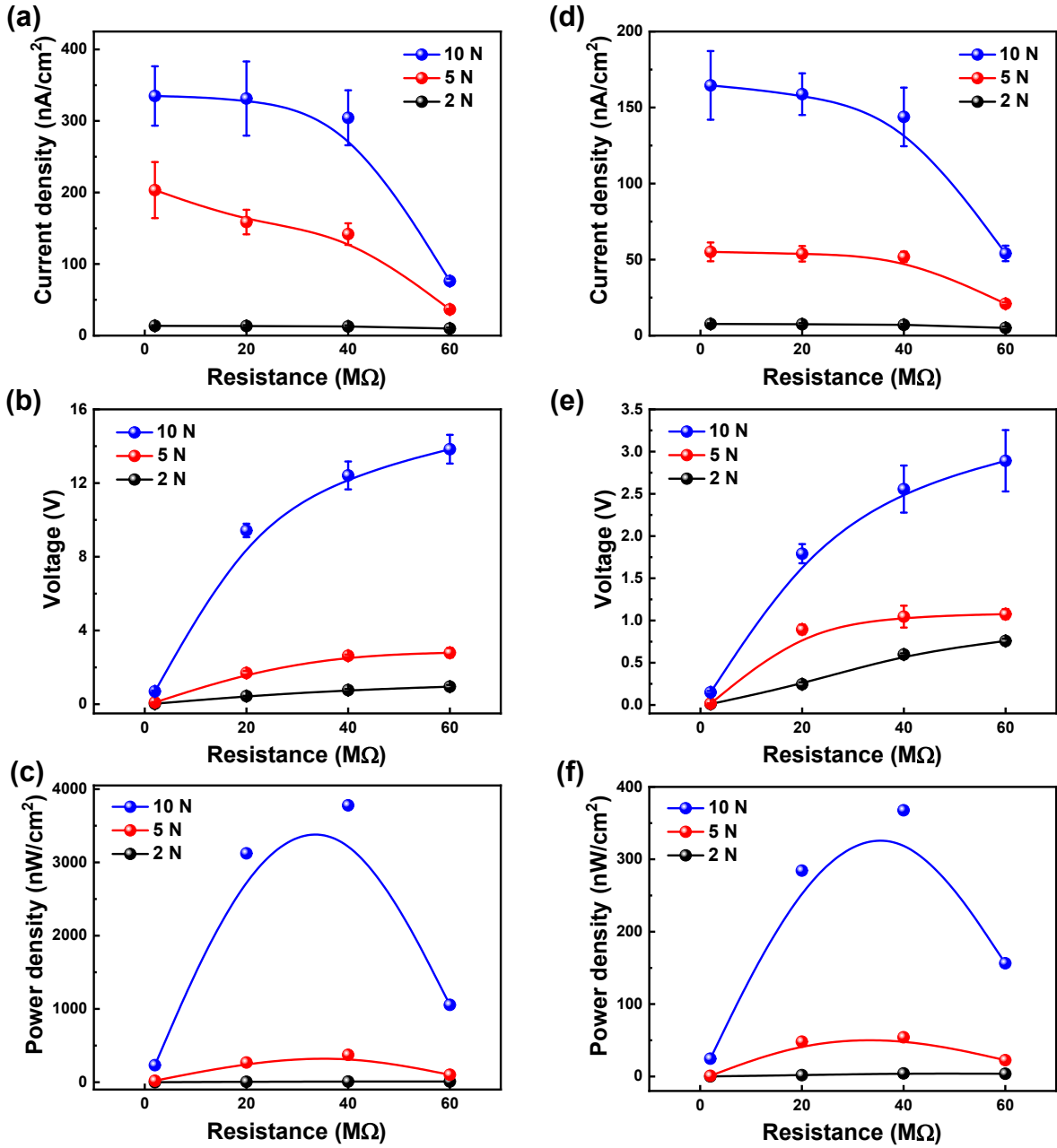
**Figure S3.** Scheme of the preparation process of a triboelectric device consisting of the FBCP-PHU and Al as negative and positive triboelectric layers, respectively.



**Figure S4.** Triboelectric output current of FBCP-PHU without EMIM-TFSI after annealed at 150 °C for different time (a). Triboelectric output current of FBCP-PHU without and with EMIM-TFSI after annealed at 150°C for 10 min (b).



**Figure S5.** Triboelectric output current (a and d), voltage (b and e), and power density (c and f) of iFBCP-PHU under different mechanical force during separation (a-c) and contact (d-f) process, respectively.



**Figure S6.** A repeated cycle test of iFBCP-PHU over 2000 cycles at 5 N and 2 Hz.

