

Supplementary material

Excellent energy storage performance in cross-linked polyimide dielectric with positively charged cross-linking points

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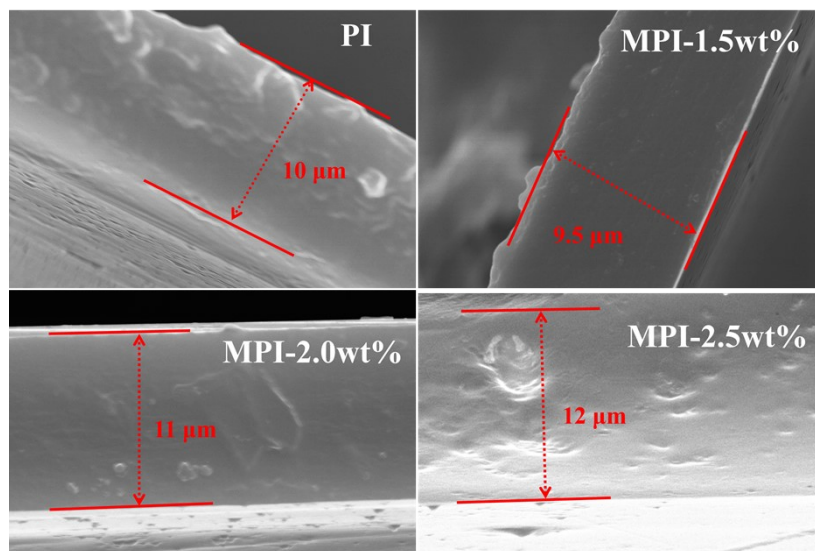


Fig. S1 SEM images of PI, MPI-1.5wt%, MPI-2.0wt%, MPI-2.5wt%.

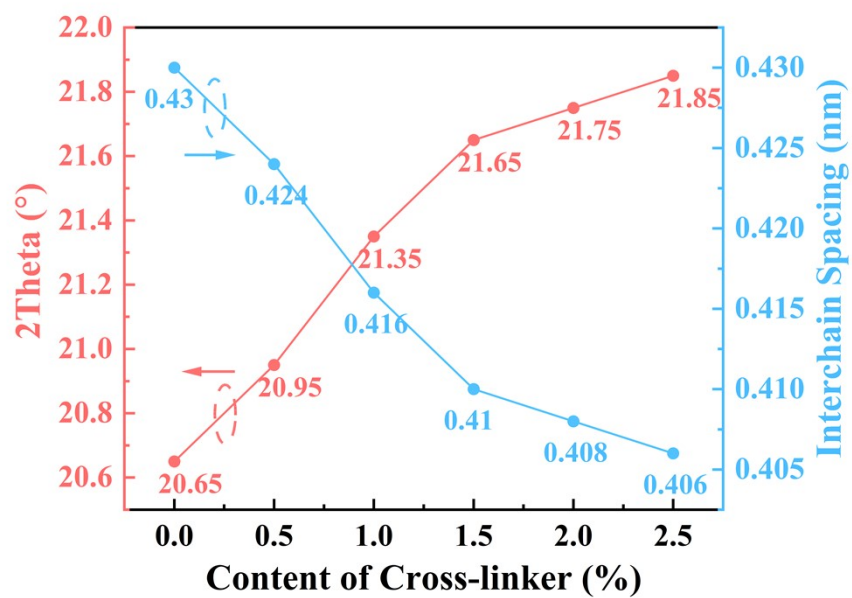


Fig. S2 Change in interchain spacing of MPI with cross-linker content.

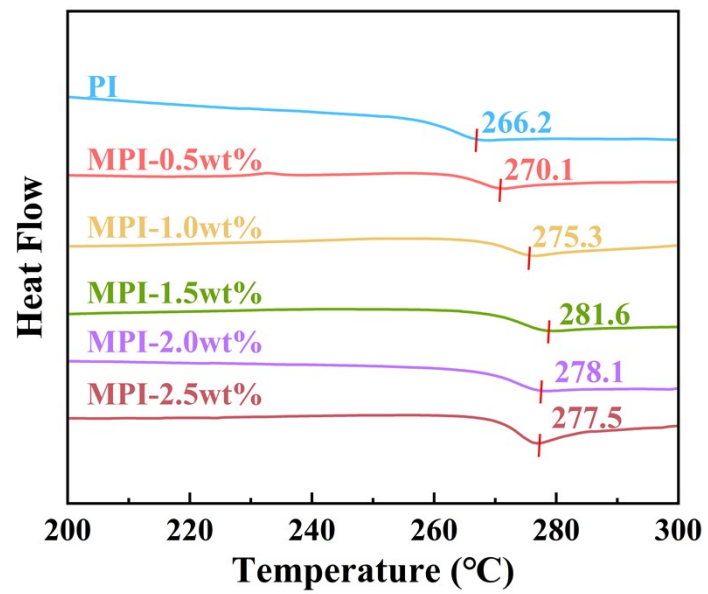


Fig. S3 DSC curves of PI and MPI.

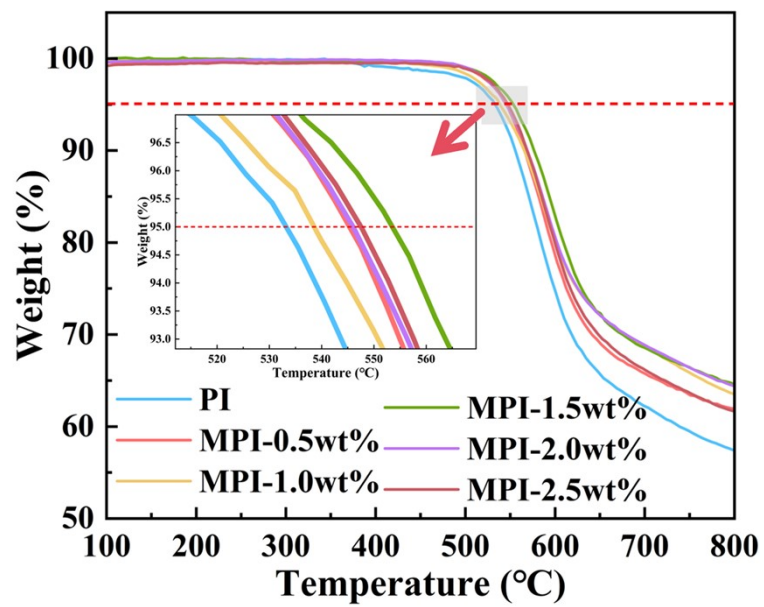


Fig. S4 TGA curves of PI and MPI.

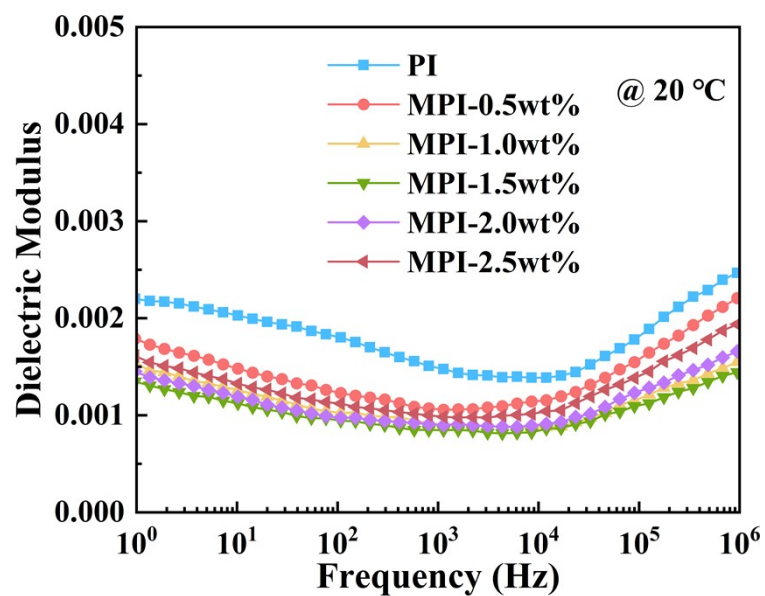


Fig. S5 Variation of the imaginary part of the dielectric modulus with frequency for PI and MPI.

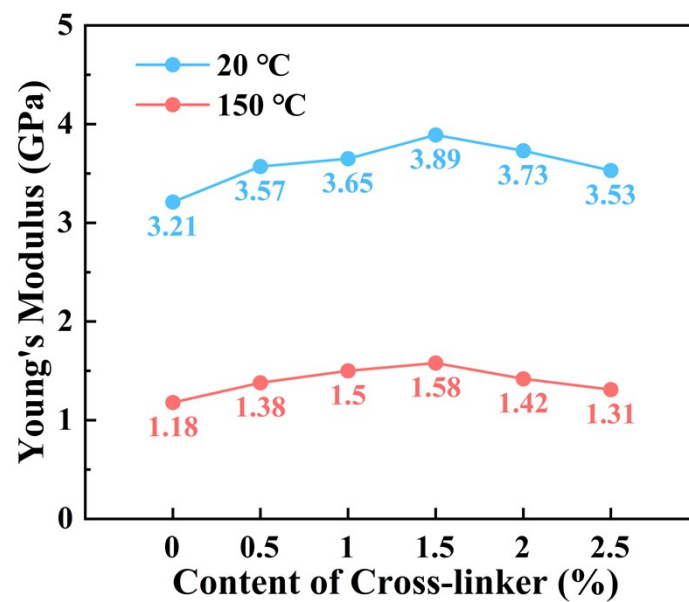


Fig. S6 Variation of Young's modulus of MPI with cross-linker content at different temperatures.

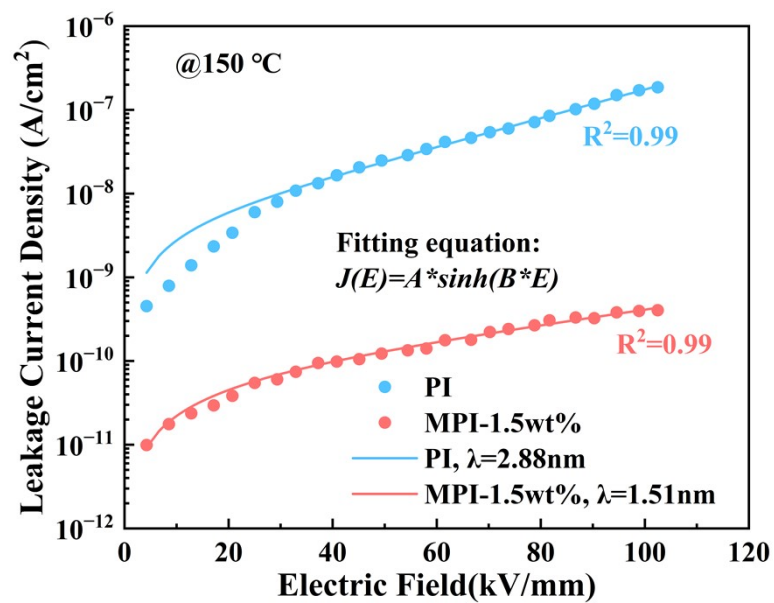


Fig. S7 Leakage current density fitting for PI and MPI at 150 °C.

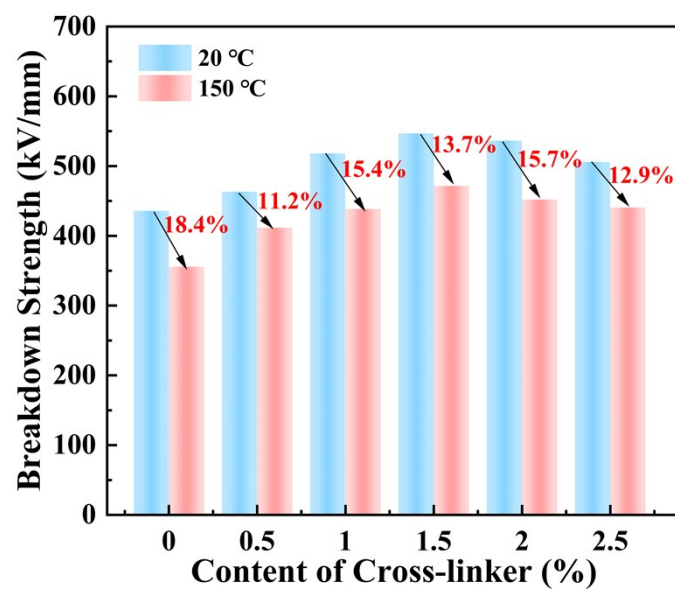


Fig. S8 Comparison of breakdown strength of MPI at different temperatures.

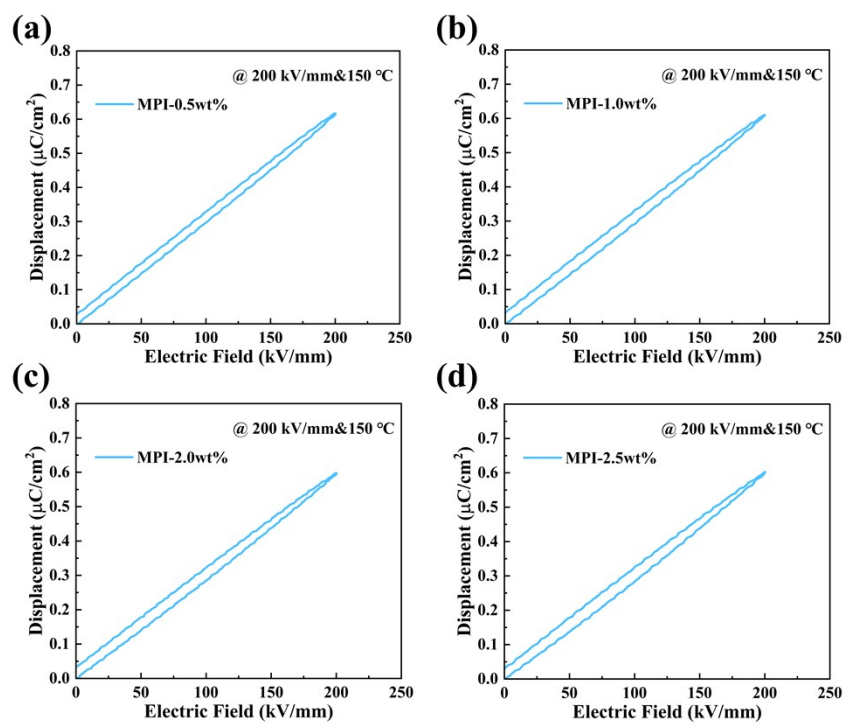


Fig. S9 *D-E* curves of MPI at 150°C and $200\text{ kV}/\text{mm}$.