

## Supporting Information

### Robust and sensitive flexible strain sensor based on polyurethane cross-linked composite hydrogels for human motion detection

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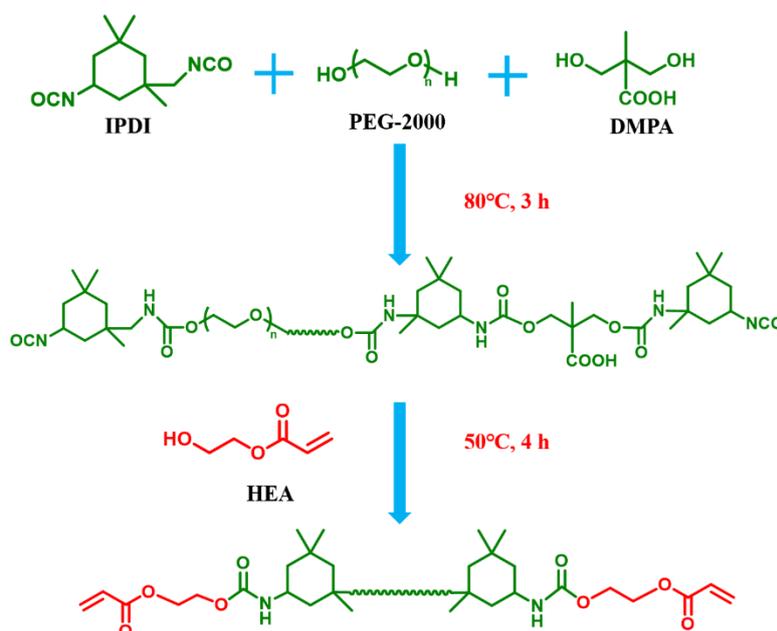


Fig. S1 Synthesis route of DPU

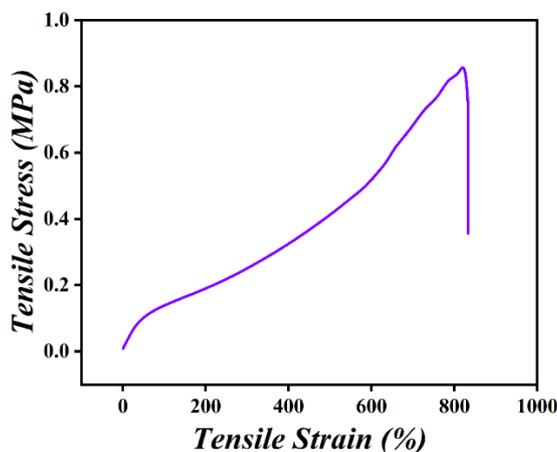


Fig. S2 Stress-strain curve of PPMD-0.5 hydrogel without MXene

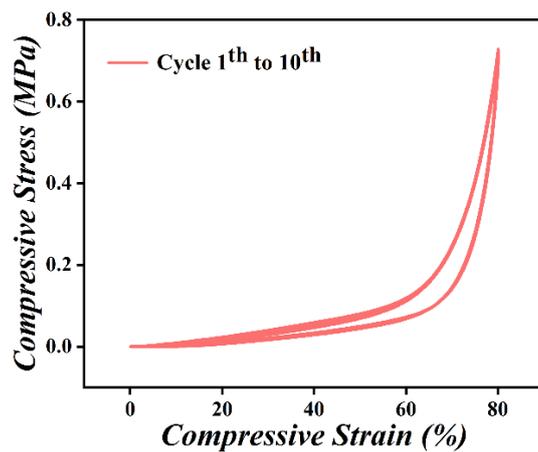


Fig. S3 Cyclic loading-unloading curves of PPMD-0.5 hydrogel under 80% compressive strain for 10 cycles

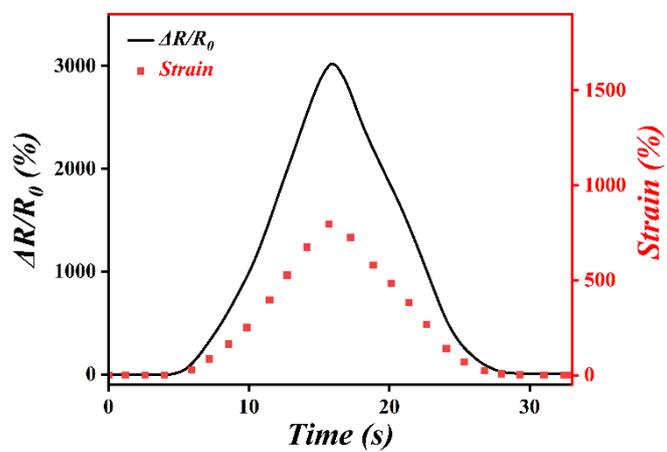


Fig. S4 The resistance change of PPMD-0.5 hydrogel during loading and unloading