ARTICLE

Supporting Information

Morphology and Properties of PEDOT:PSS/Soft Polymer Blends through Hydrogen Bonding Interaction and Their Pressure Sensor Application

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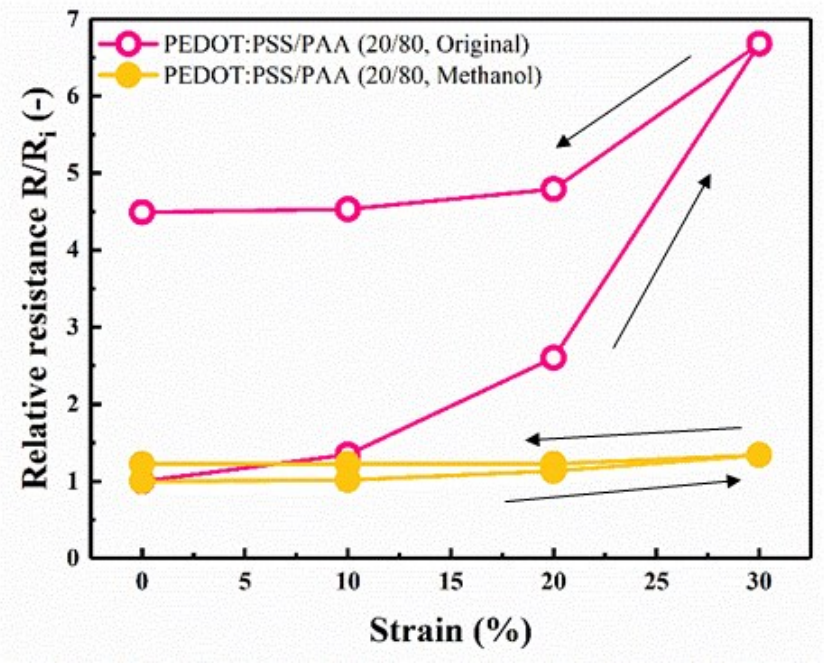

Fig. S1 R/R_i under the first cycle for PEDOT:PSS/PAA (20/80) before and after methanol treatment.

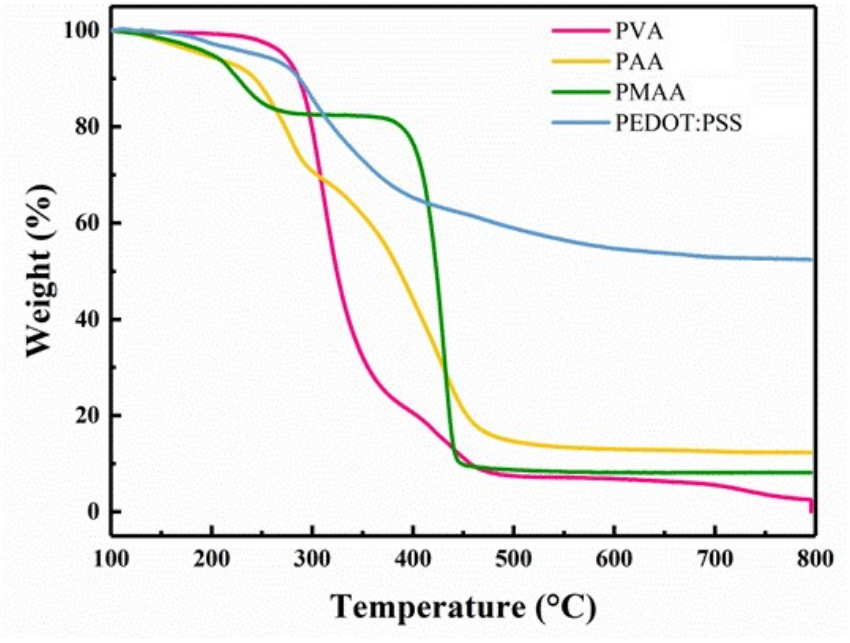

Fig. S2 TGA profiles of the pristine PEDOT:PSS and PVA, PAA, PMAA.

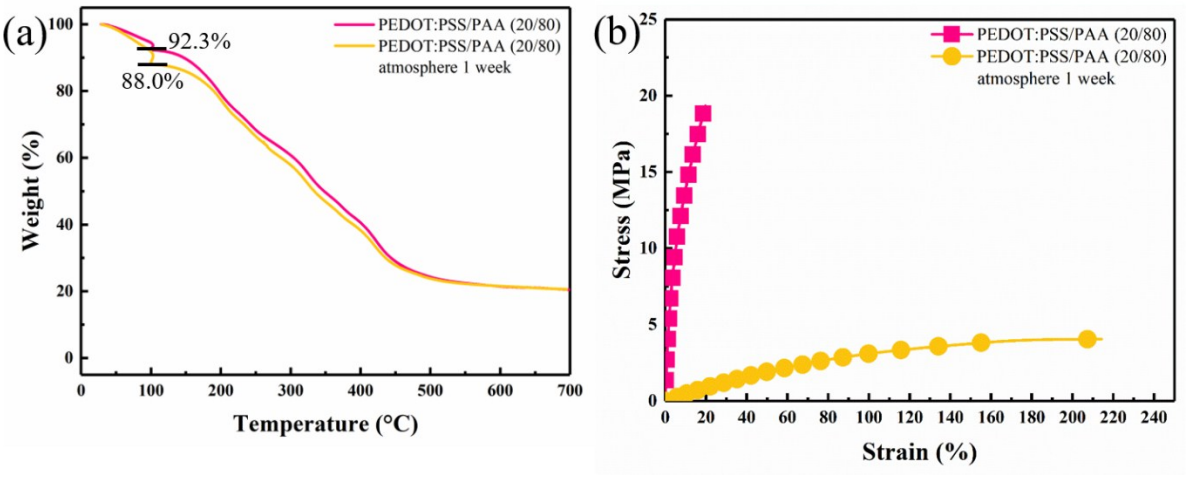

Fig. S3 Moisture absorption test: (a) TGA and (b) stress strain curves of the PEDOT:PSS/PAA (20/80, Original) free standing bulk film stored in atmosphere 1 week before tested.

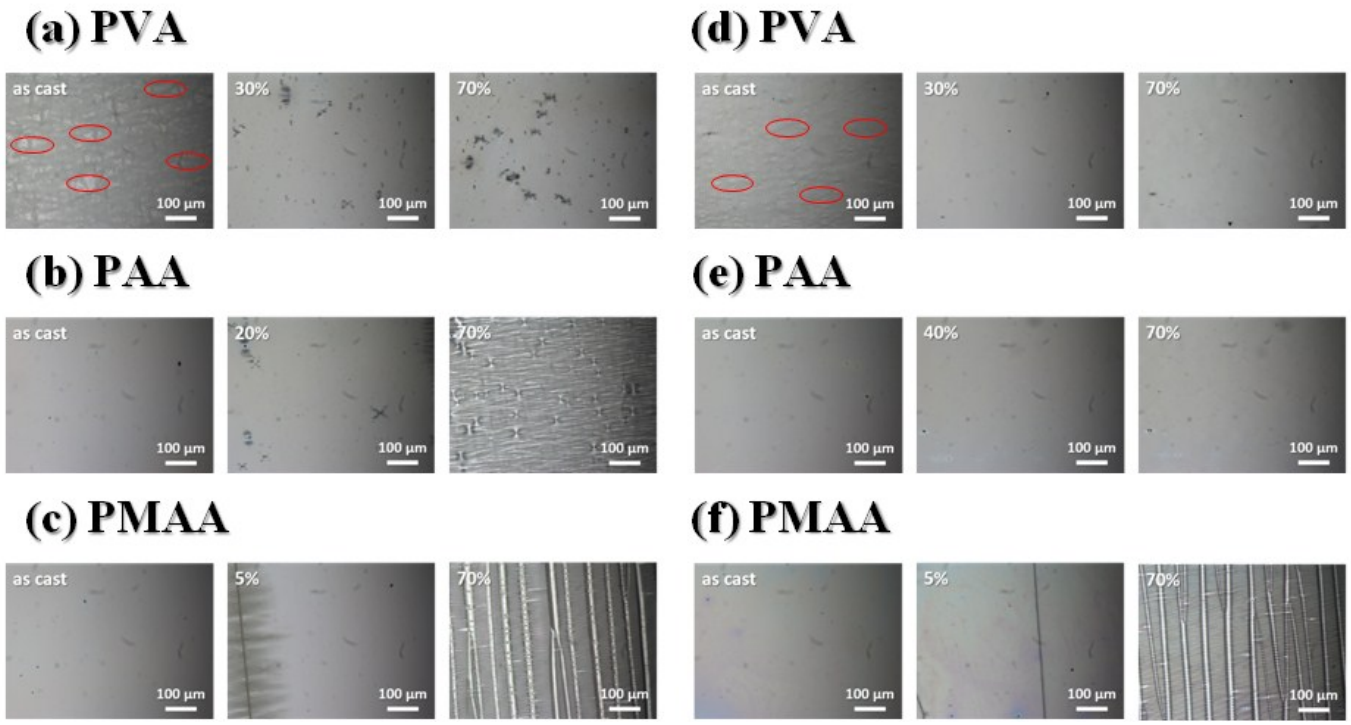

Fig. S4 OM images of the PEDOT:PSS/soft polymer blends (20/80) thin film at different tensile strains: (a) to (c) for Original, (d) to (f) for Methanol.

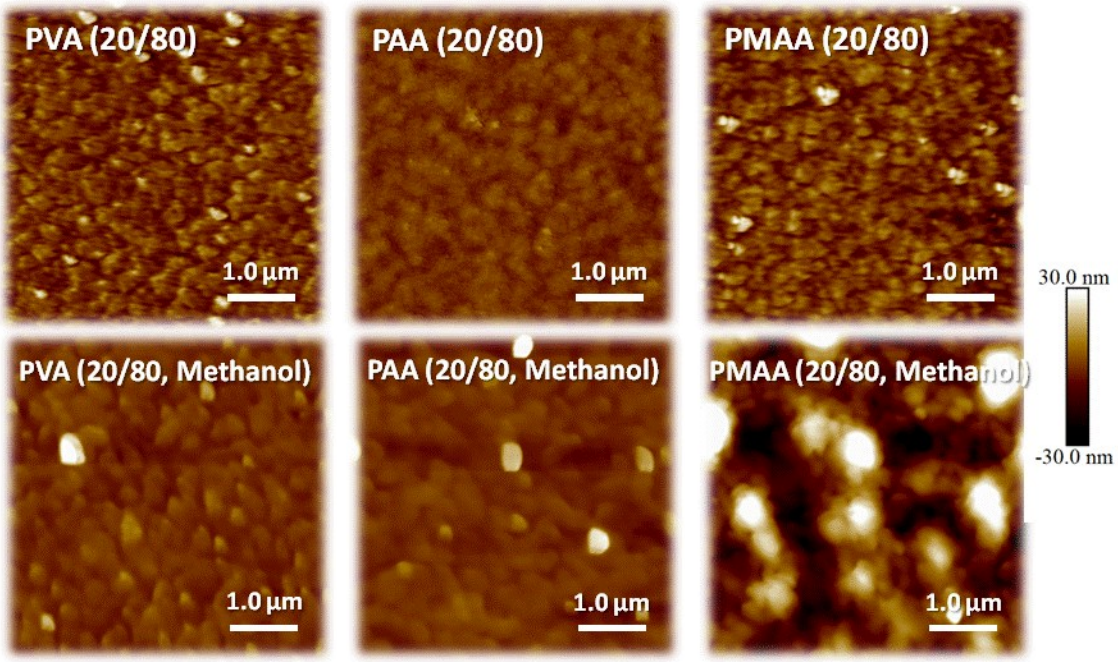

Fig. S5 C-AFM topography images of the PEDOT:PSS/soft polymers blends (20/80) before and after methanol treatment.

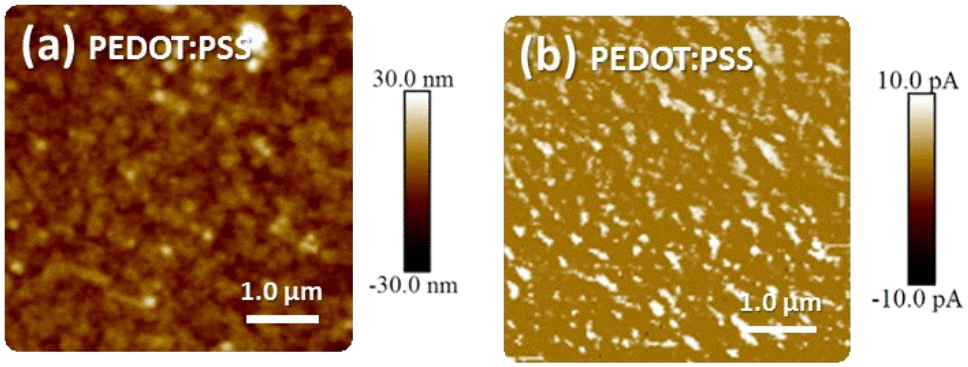

Fig. S6 C-AFM (a) topography images and (b) current images for pristine PEDOT:PSS.

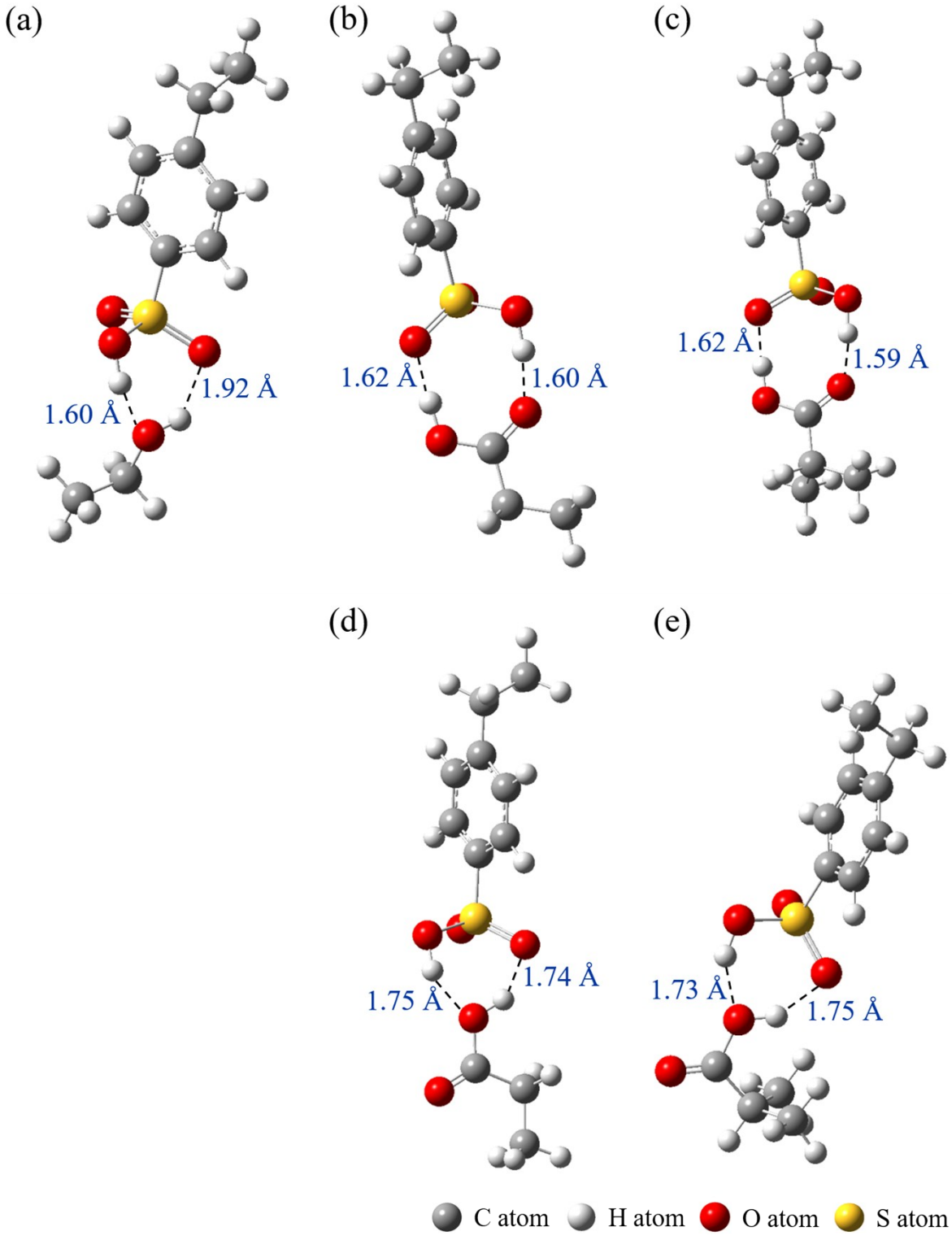

Fig. S7 Gaussian simulation of the interaction between monomers of (a) PSS–PVA, (b) and (d) PSS–PAA, (c) and (e) PSS–PMAA.

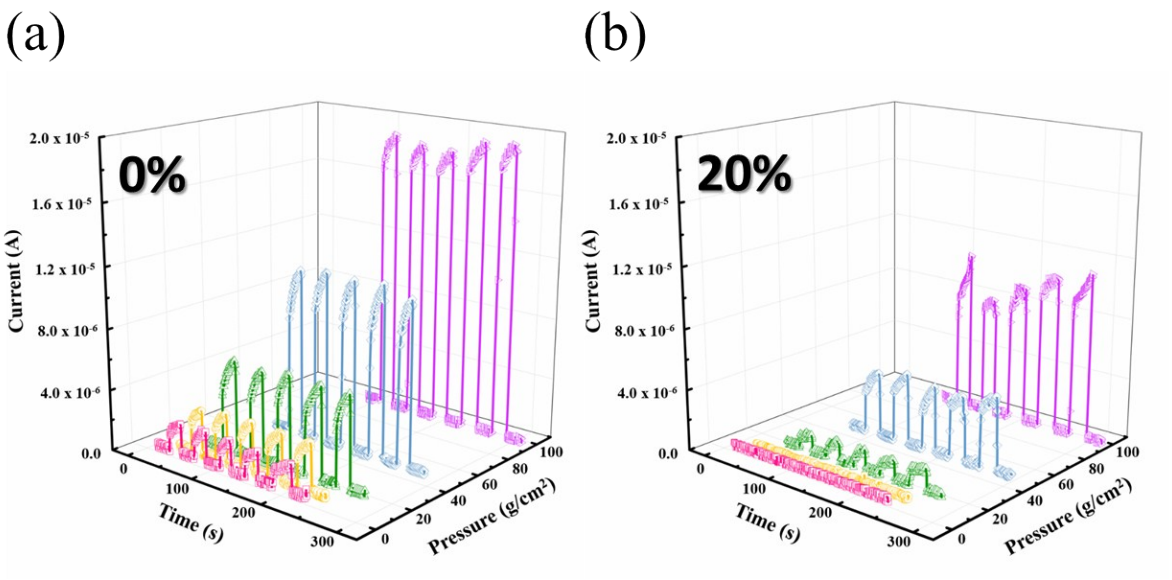

Fig. S8 Pressure sensor performance of the PEDOT:PSS/PAA (20/80, Original) at the (a) 0%, (b) 20%.

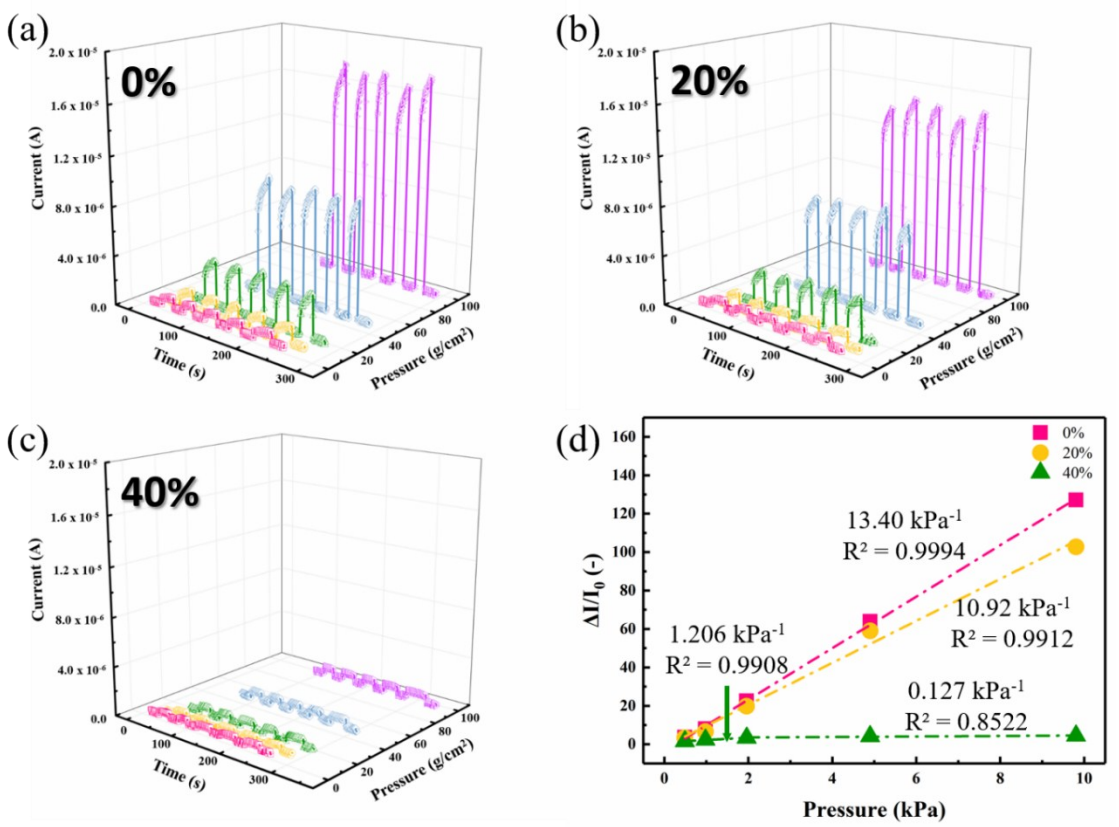

Fig. S9 Pressure sensor performance of the PEDOT:PSS/PVA (20/80, Original) at the (a) 0%, (b) 20% (c) 40% tensile strains, and (d) linear fitting sensitivity.

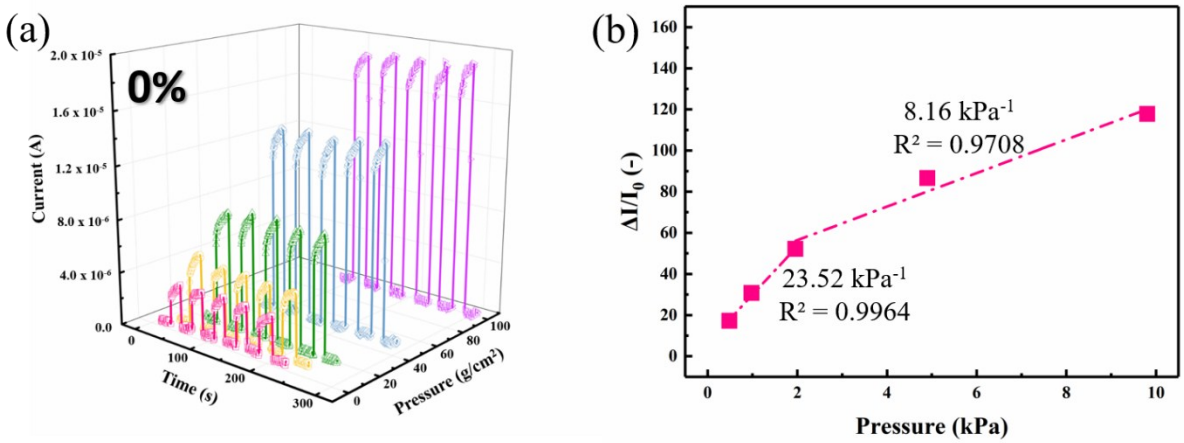

Fig. S10 Pressure sensor performance of the PEDOT:PSS/PMAA (20/80, Original) at the (a) 0% tensile strain and (b) linear fitting sensitivity.