Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

POSS-ProDOT Crosslinking of PEDOT

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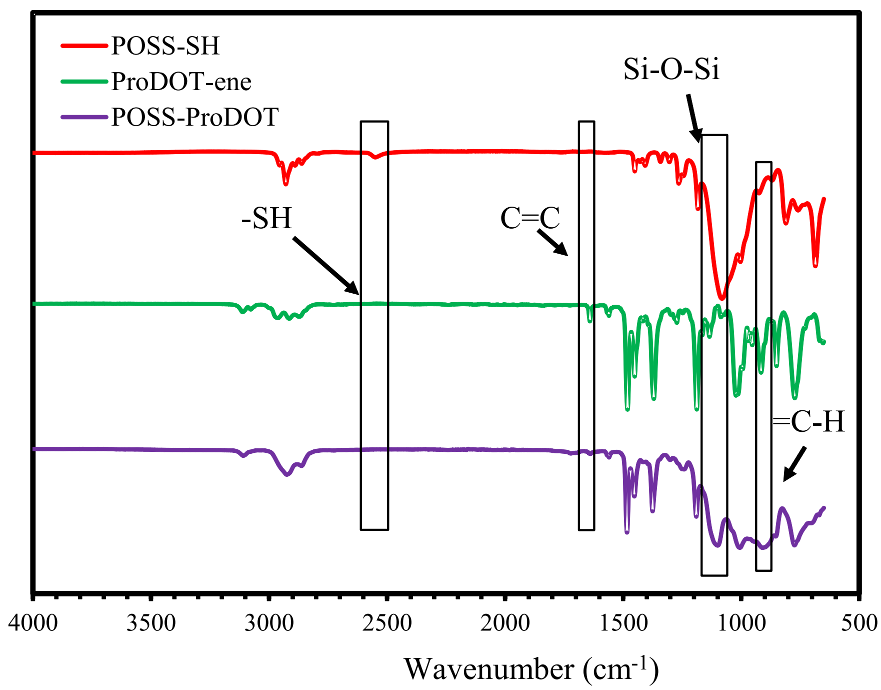

Figure S1. FTIR spectra. (a) ProDOT-ene, (b) POSS-SH and (c) POSS-ProDOT

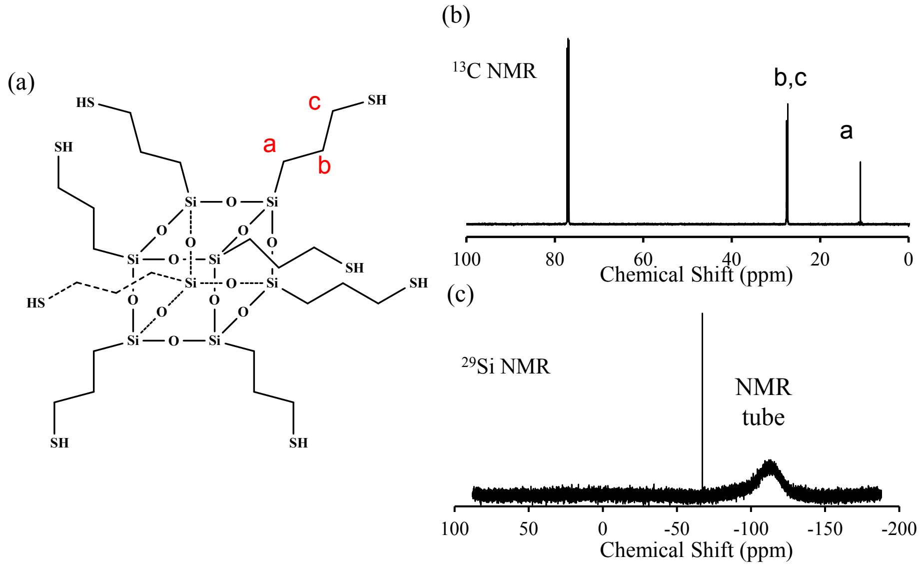

Figure S2. ^{13}C and ^{29}Si NMR spectra of POSS-SH. (a) Chemical structure of POSS-SH. (b) ^{13}C NMR spectrum. (c) ^{29}Si NMR indicated that the POSS-SH has a cubic structure.

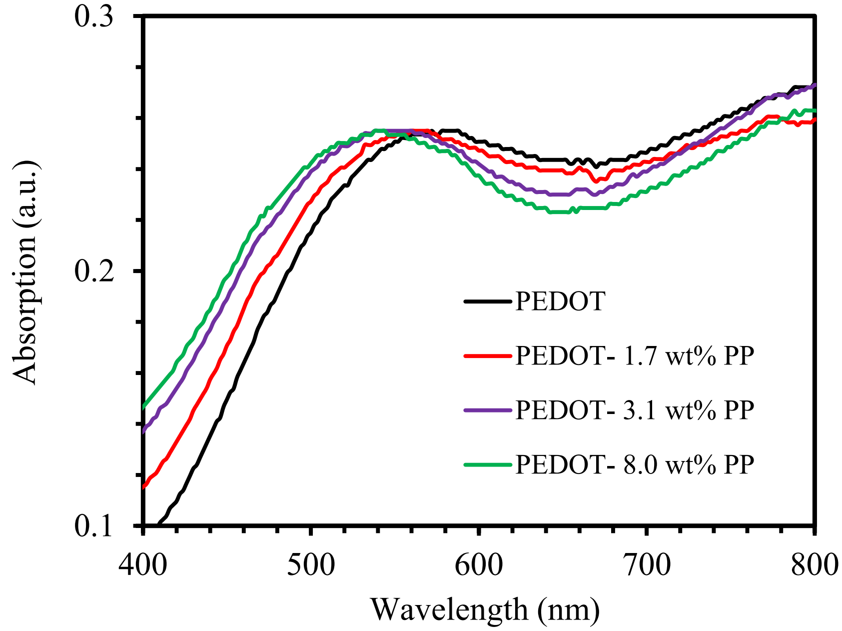

Figure S3. UV-vis absorption of PEDOT and copolymer films. POSS-ProDOT crosslinker could blue shift the adsorption of PEDOT films and the slight shift indicated that crosslinker does not significantly disrupt the overall conjugation of the PEDOT backbone.

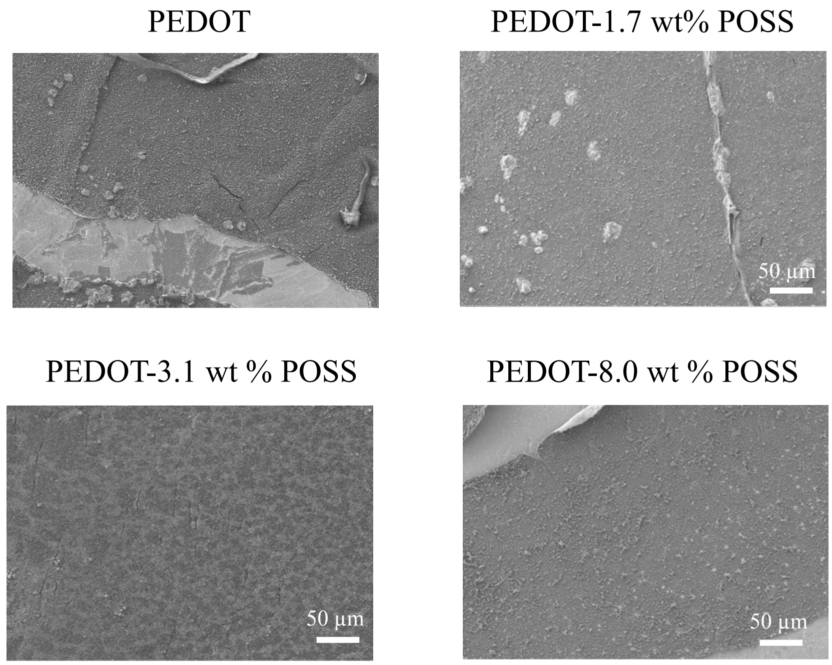

Figure S4. Morphologies of PEDOT and copolymer films after stability test at a higher magnification: (a) PEDOT film; (b) PEDOT film with 1.7 wt % crosslinker; (c) PEDOT with 3.1 wt % crosslinker; (d) PEDOT film with 8.0 wt % crosslinker. (Scale bar represents 50 μm)

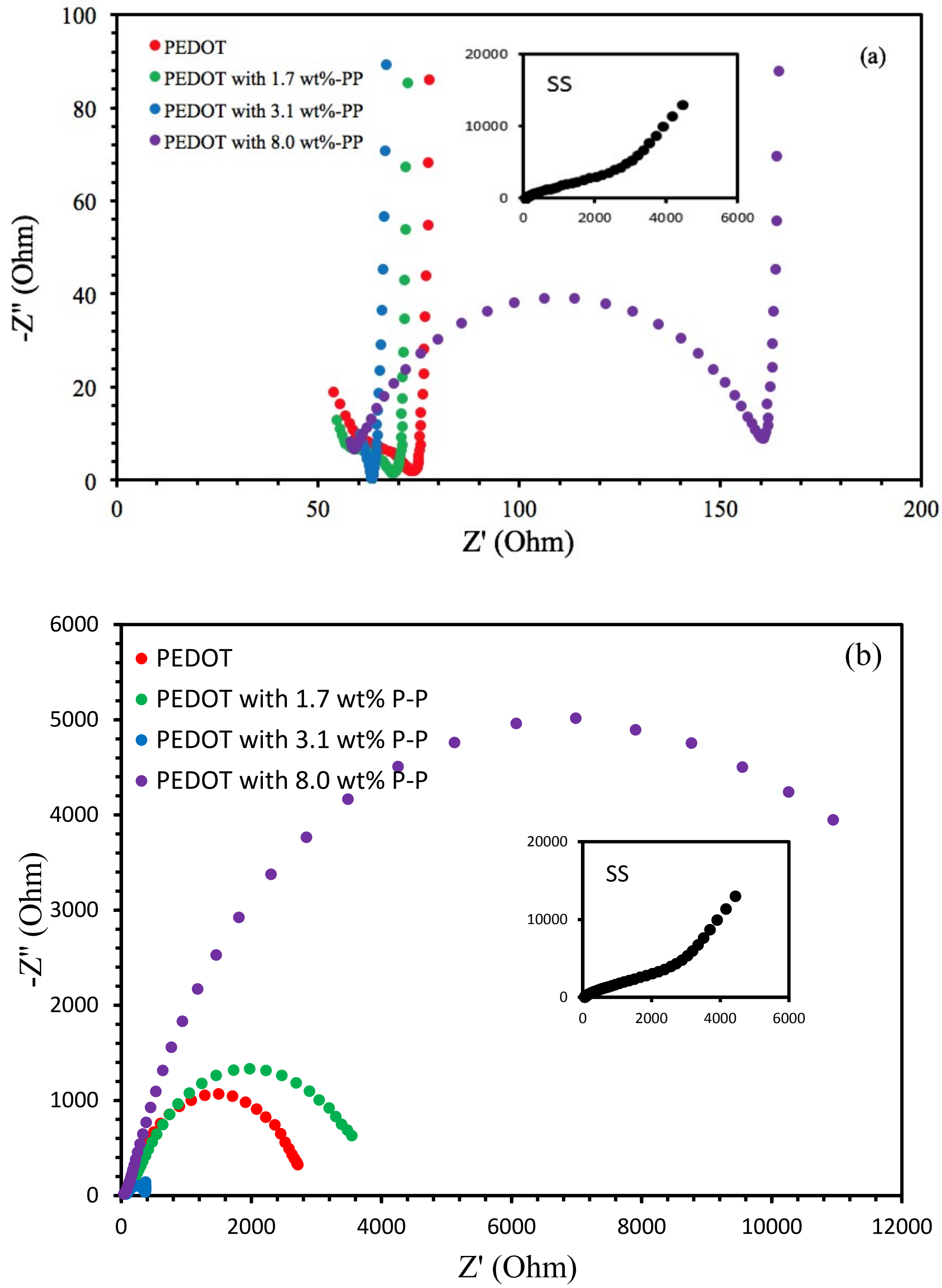

Figure S5. Nyquist plots of EIS of stainless steel, PEDOT and copolymer films deposited on stainless steel before (a) and after (b) stability tests.