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(Supplementary Information)

Acidity Suppression of Hole Transport Layer via Solution Reaction of Neutral PEDOT:PSS for Stable Perovskite Photovoltaics

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Table S1. Peak integration and ratio of various PEDOT:PSS typical bands in the FTIR spectrum

	Imidazole (C- N) 1277 cm^{-1}	PSS (O-S-O) 1003 cm^{-1}	PEDOT (C-S-C) 685 cm^{-1}
AN10	0	8.78	13.78
AN11	8.27	17.3	28.64
AN13	14.35	25.58	30.05

Table S2. Electrical parameters of the neutral PEDOT:PSS-based PSCs

Acid:Neutral	Voc (V)	Jsc (mA/cm2)	IPCE (mA/cm2)	FF (%)	PCE (%)
AN01 (Neutral)	0.876	14.36	13.85	54	6.74

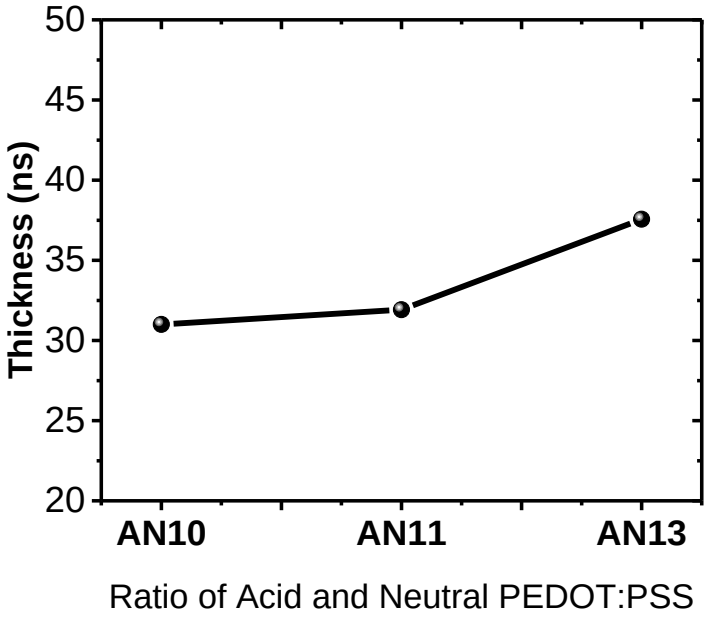

Figure S1. Thickness of spin-coated AN10-, AN11-, and AN13-PEDOT:PSS films obtained by the Dektak XT thickness profiler

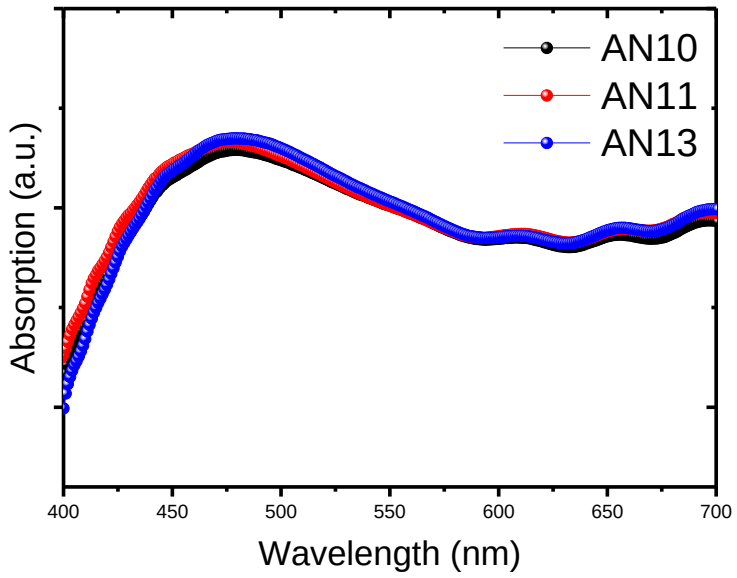

Figure S2. Absorbance of the spin-coated AN10-, AN11-, and AN13-PEDOT:PSS films

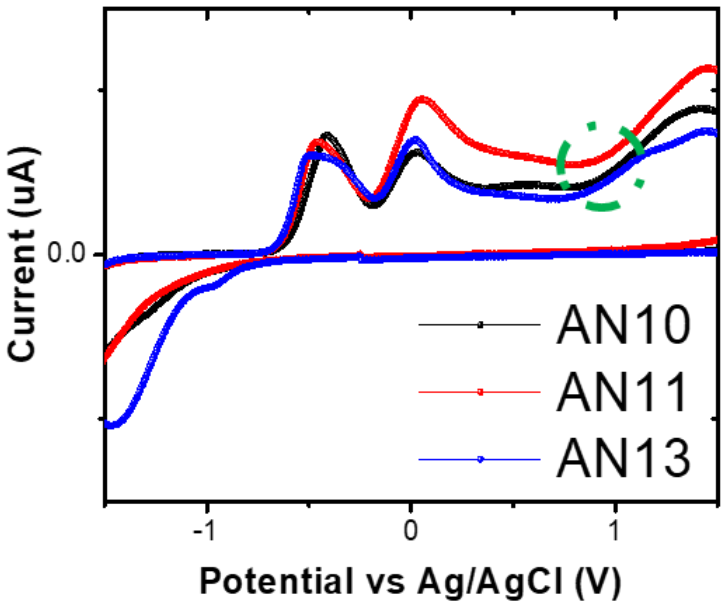

Figure S3. Cyclic voltammetry (first scans) curves of AN10-, AN11-, and AN13-PEDOT:PSS films deposited onto a Pt disk electrode in Bu_4NPF_6/acetonitrile supporting an electrolyte/solvent system

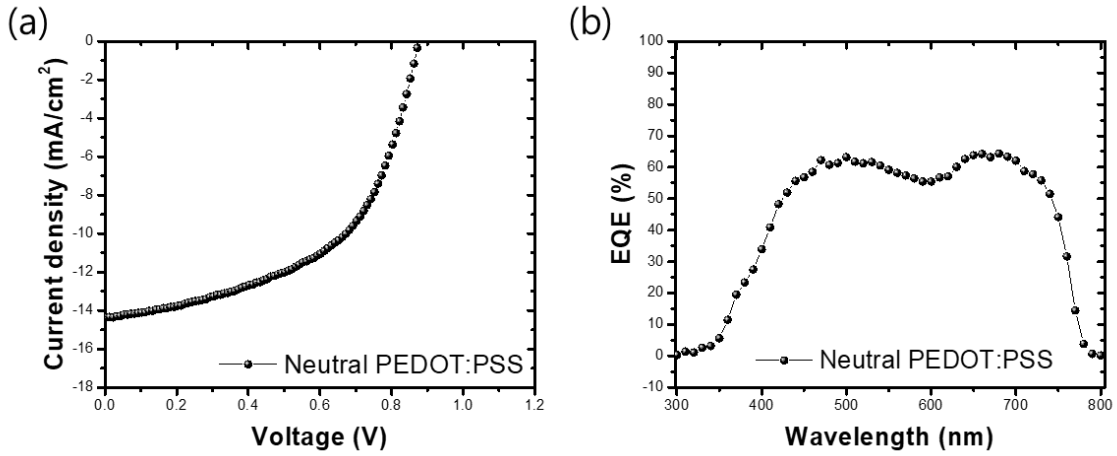

Figure S4. (a) Current-voltage (J-V) characteristics of neutral PEDOT:PSS-based PSCs under AM 1.5 irradiation at 100 mW cm^{-2}. (b) EQE of neutral PEDOT:PSS-based PSCs depending on J-V characteristics.