

## Supporting information for

### Self-aligned patterning of conductive films on plastic substrate for electrodes of flexible electronics

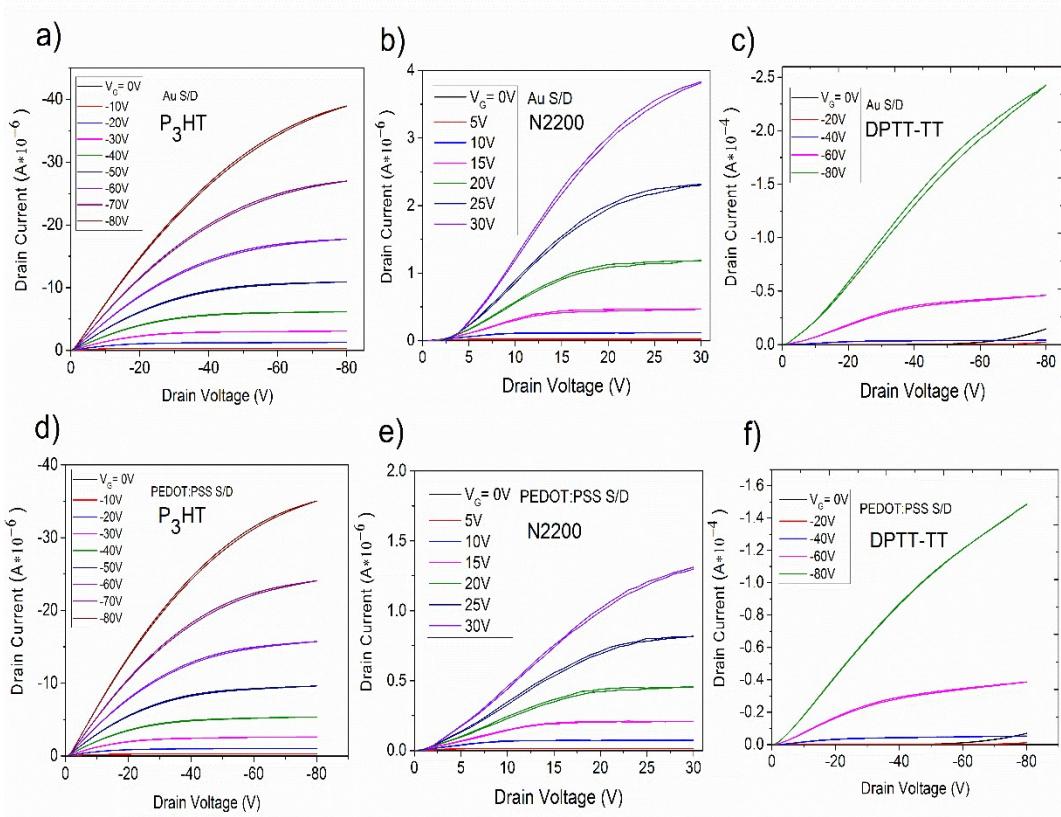
Mamo Melaku Dereje, Eun-Sol Shin and Yong-Young Noh\*

*Department of Energy and Materials Engineering, Dongguk University, 30 Pildong-ro,  
1-gil, Jung-gu, Seoul 04620, Republic of Korea*

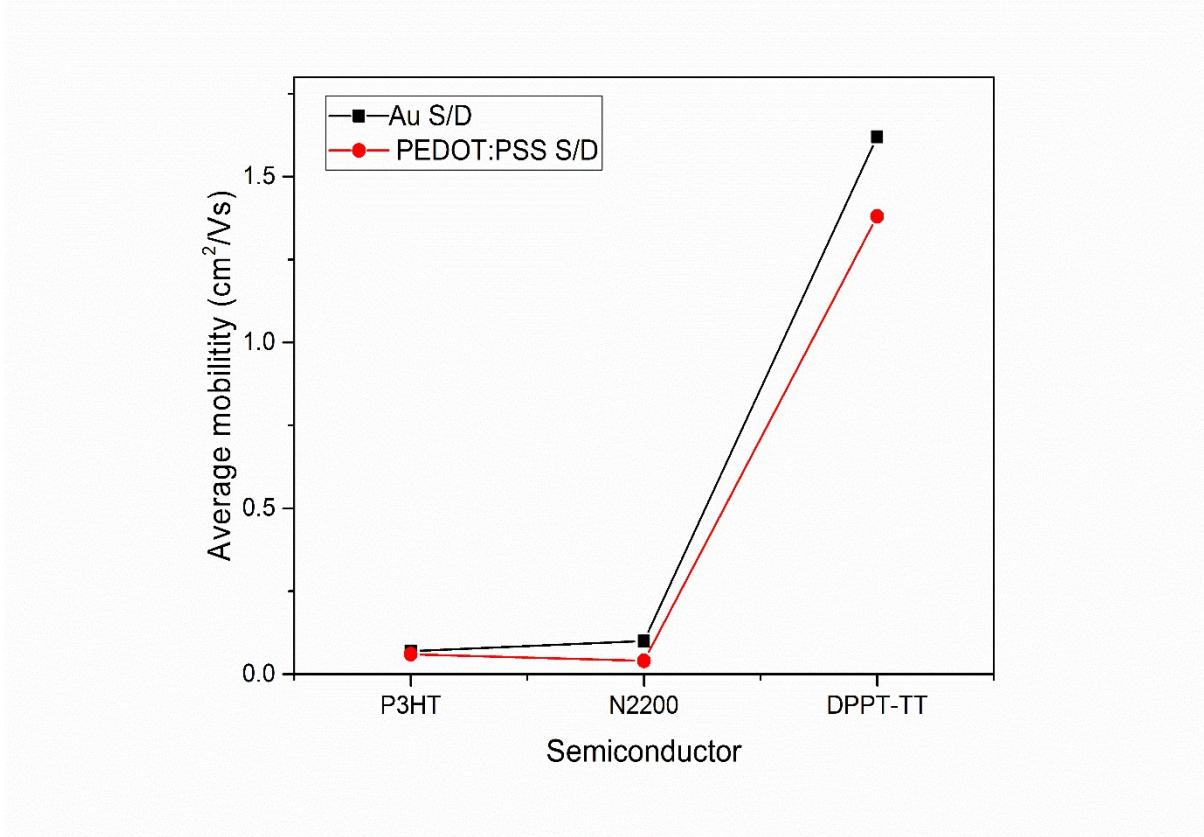
\*Email - [yynoh@dongguk.edu](mailto:yynoh@dongguk.edu)

**Table S1.** Contact angles of the pristine and photo-oxidized poly (ethylene 2, 6-naphthalate) (PEN), polyvinyl pyrrolidone (PVP) and poly (methyl methacrylate) PMMA samples before and after the photochemical oxidation reaction (PCO)

No	Sample plates	Contact Angle (°)	
		DI Water	PEDOT: PSS-DMSO
1.	PEN	92.05±0.75	45.93±0.09
2.	PEN/PCO	61.17±2.96	36.95±0.35
3.	PEN/PVP	95.05±0.85	49.55±0.85
4.	PEN/PVP/PCO	59.10±0.41	30.80±0.60
5.	PMMA	74.23±0.82	42.30±1.50
6.	PMMA/PCO	75.35±0.45	43.15±6.35



**Figure S1.** Typical output curves of the FETs fabricated using PEDOT:PSS as the S/D electrode ((a) P3HT; (b) P(NDI2OD-T2); (c) DPPT-TT) or Au as the S/D electrode for the semiconductors ((d) P3HT; (e) P(NDI2OD-T2); (f) DPPT-TT).



**Figure S2.** Mobility distributions of randomly selected P3HT, P(NDI2OD-T2) and DPPT-TT/PMMA FETs with Au and PEDOT:PSS S/D electrodes (12 devices each).