Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C. This journal is © The Royal Society of Chemistry 2019

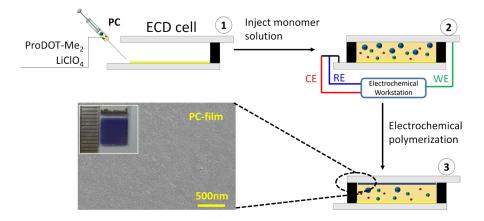
Inner-electropolymerization Method for Preparing Electrochromic Devices with Various Shapes and Large Size

Shian Guan, Wenjing Wang, Baozhang Li, Jianming Zheng and Chunye Xu*

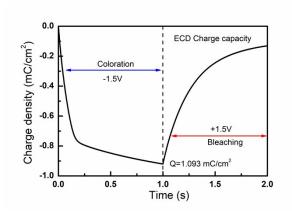
Hefei National Laboratory for Physical Sciences at the Microscale, CAS Key Lab of Soft Matter Chemistry, Department of Polymer Science and Engineering, University of Science and Technology of China, Hefei, 230026, P. R. China.

*E-mail: chunye@ustc.edu.cn

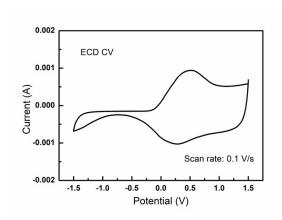
Supporting Figures



Figures S1. Schematic diagrams of ECD fabrication process. (1): Inject the monomer solution, prepared by dissolving 0.01 M monomer (ProDOT-Me₂) and 0.1 M LiClO₄ in Propylene carbonate (PC) solvent; (2): Electrochemical polymerizing inside the ECD cell, 3.5 V is applied and lasting for 3.5 s; (3): The PProDot-Me₂ film (PC-film) is synthesized, and Its corresponding SEM.



Figures S2. Chronocoulometry curves of the obtained ECD prepared via inner-electropolymerization method.



Figures S3. Cyclic voltammograms of the obtained ECD tested under a scan rate of $0.1\,\mathrm{V/s}$.

 Table S1. The summary of the obtained ECD's electrochromic properties at different wavelengths.

ECD	ΔΤ	Response time (s)	ΔΟD	Q_d (mC/cm ²)	CE (cm ² /C)
λ=580 nm	61%	~0.5	0.589	1.093	539
λ=555 nm	41.4%	-	0.430	1.093	393
λ=633 nm	40.8%	-	0.431	1.093	394