

ESI

[1,2,5]Chalcogenodiazolo[3,4-*c*]pyridine and Selenophene
based Donor-Acceptor-Donor Electrochromic Polymers
Electrosynthesized from High Fluorescent Precursors

Baoyang Lu,[‡] Shouli Ming,[‡] Kaiwen Lin, Shijie Zhen, Hongtao Liu, Hua Gu, Shuai
Chen, Yuzhen Li, Zhengyou Zhu, Jingkun Xu*

*School of Pharmacy, Jiangxi Science & Technology Normal University, Nanchang
330013.*

*: Corresponding authors. Tel: 86-791-88537967, Fax: 86-791-83823320.

Email: xujingkun@tsinghua.org.cn

[‡]: These authors contributed equally to this work.

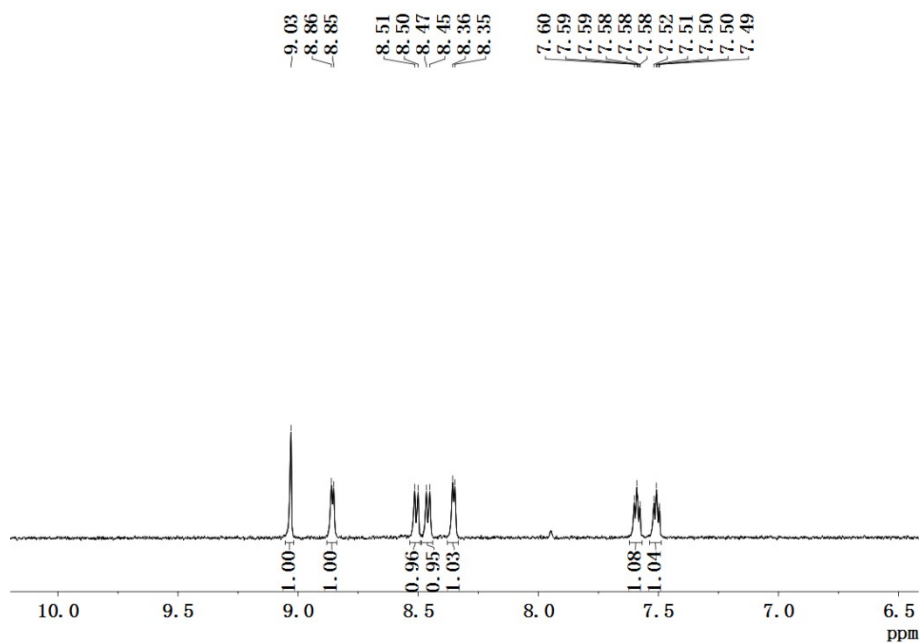


Figure S1. ^1H spectrum of Se-PT-Se in $\text{DMSO-}d_6$

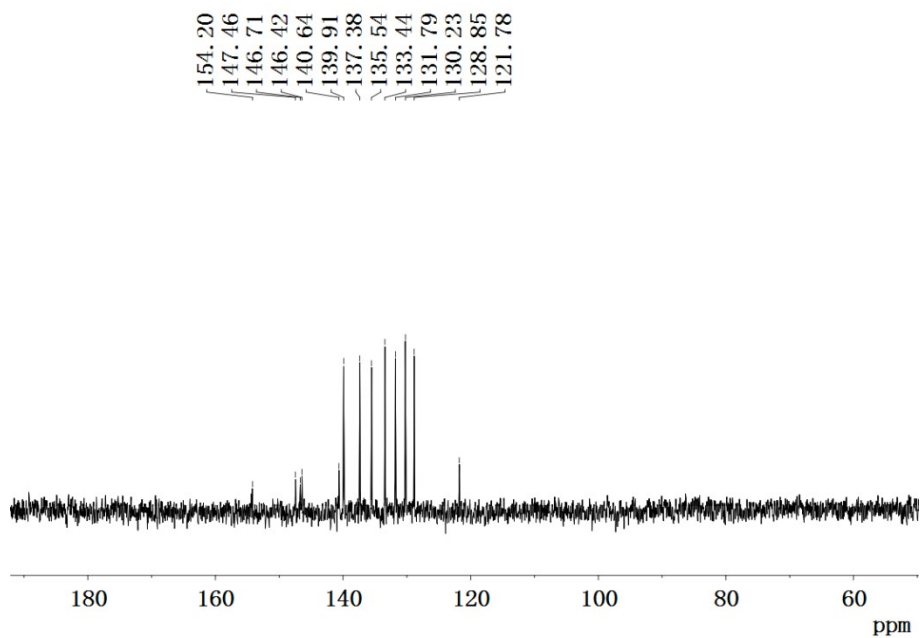


Figure S2. ^{13}C spectrum of Se-PT-Se in $\text{DMSO-}d_6$

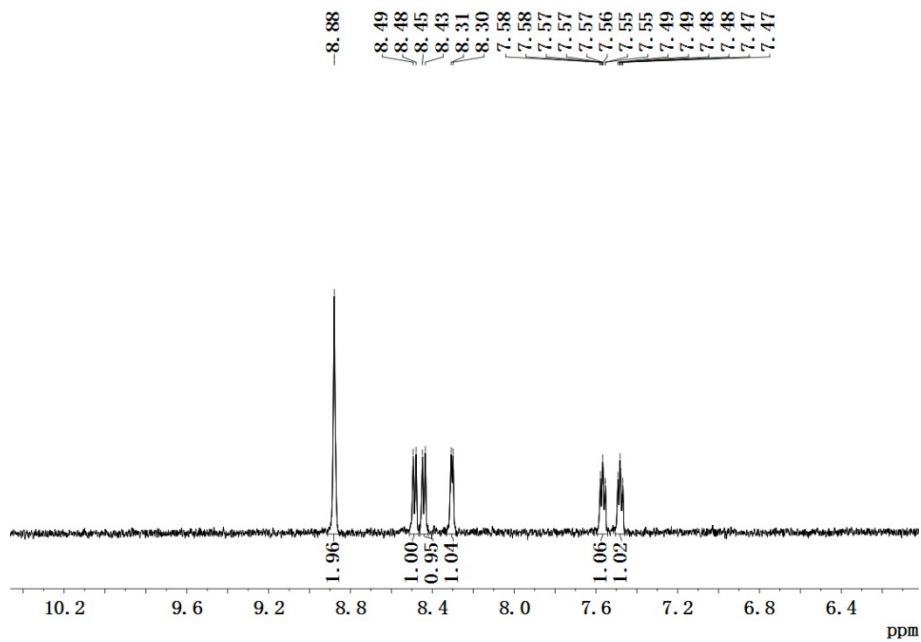


Figure S3. ^1H spectrum of Se-PSe-Se in $\text{DMSO-}d_6$

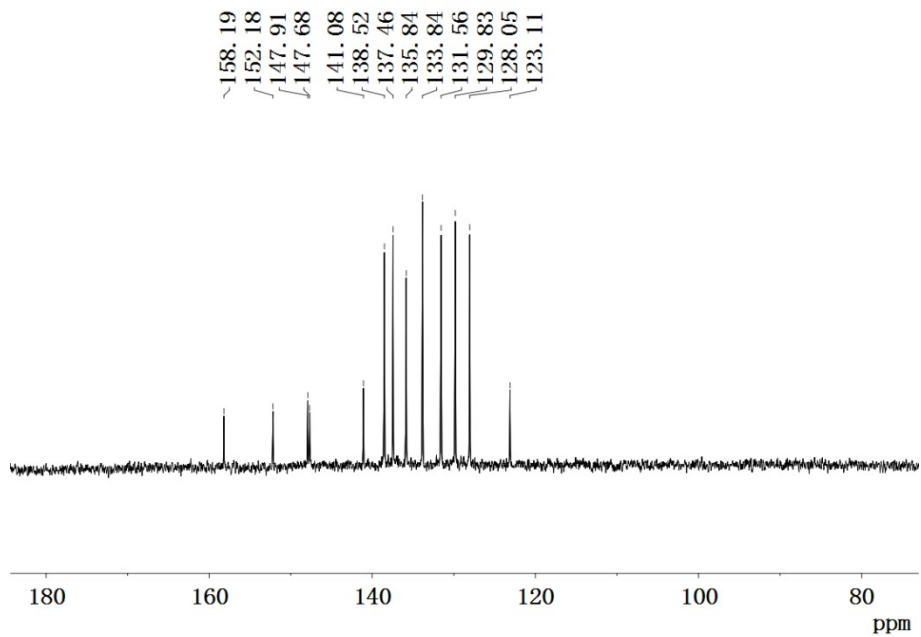


Figure S4. ^{13}C spectrum of Se-PS-Se in $\text{DMSO-}d_6$

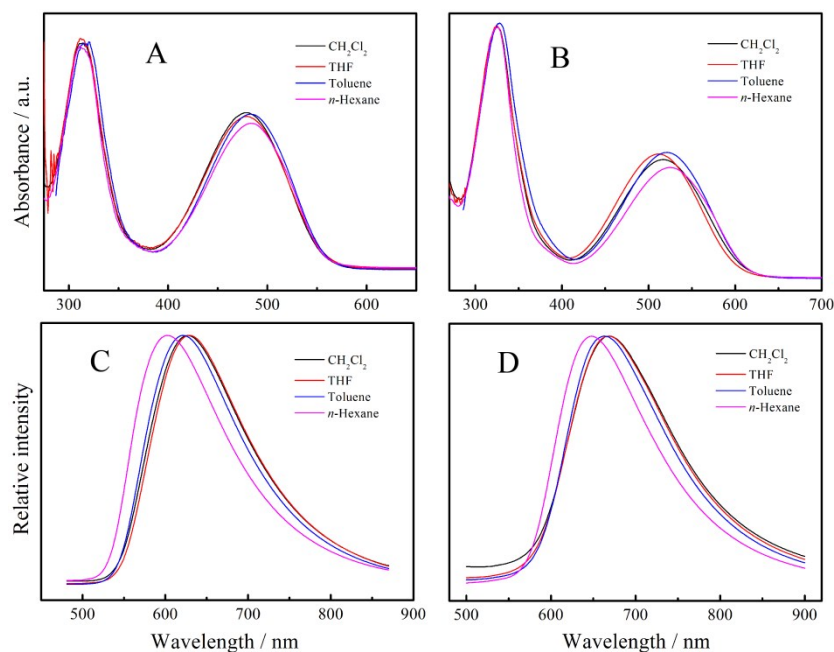


Figure S5 Absorption spectra of Se-PT-Se (A) and Se-PS-Se (B) in CH₂Cl₂, THF, toluene and *n*-hexane; Emission spectra of Se-PT-Se (C) and Se-PS-Se (D) in CH₂Cl₂, THF, toluene and *n*-hexane.

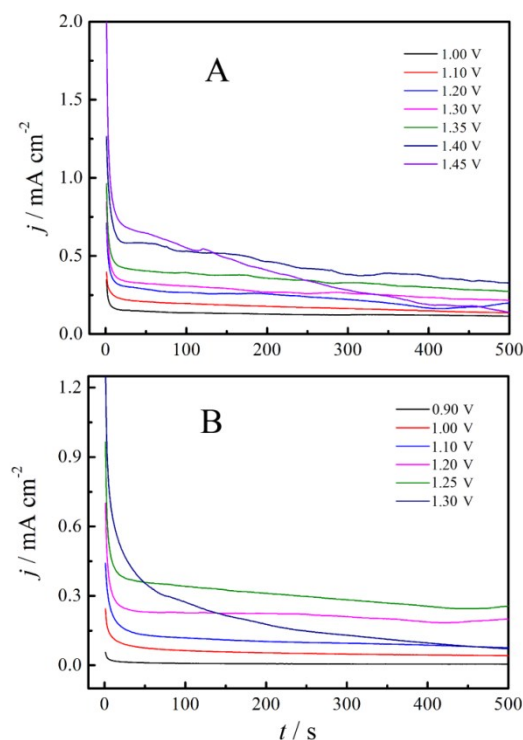


Figure S6 Chronoamperograms of Se-PT-Se (A) and Se-PS-Se (B) in CH₂Cl₂-Bu₄NPF₆ (0.2 mol L⁻¹) on Pt plate electrode at different applied potentials for 500 s.

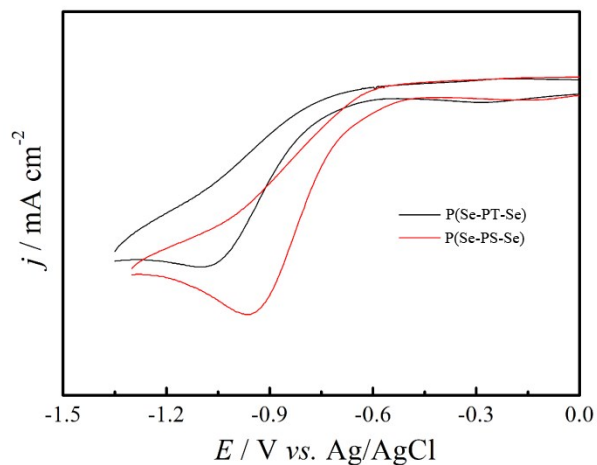


Figure S7 Cyclic voltammograms of P(Se-PT-Se) and of P(Se-PS-Se) in CH_2Cl_2 - Bu_4NPF_6 (0.20 mol L^{-1}) at a scan rate of 50 mV s^{-1} vs. Ag/AgCl.

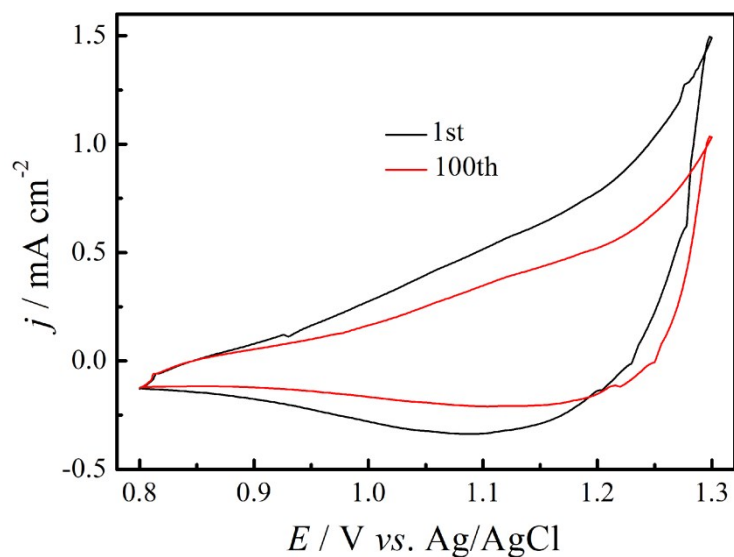


Figure S8 CVs of P(Se-PT-Se) in CH_2Cl_2 - Bu_4NPF_6 at the scan rate of 150 mV s^{-1} .
Electrolyte concentrations: 0.2 mol L^{-1} .

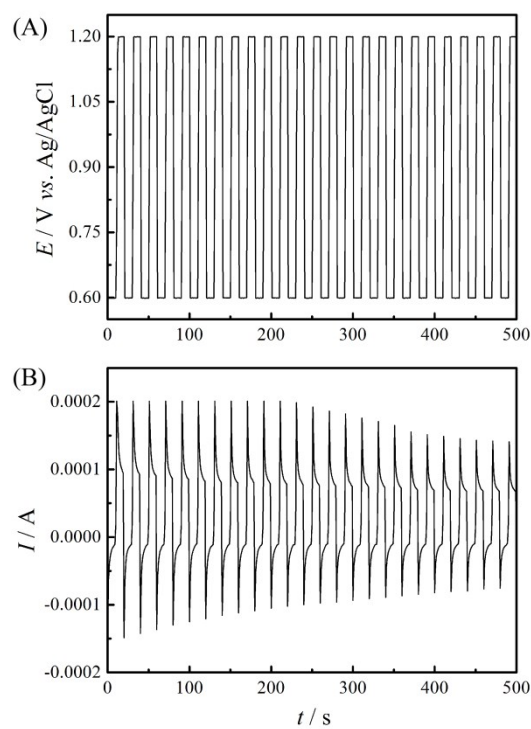


Figure S9 Potentials and current densities of P(Se-PT-Se) during switching studies

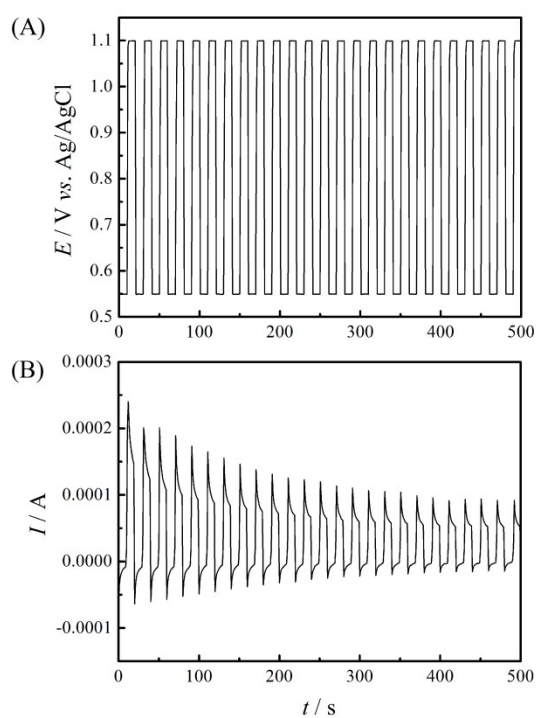


Figure S10 Potentials and current densities of P(Se-PS-Se) during switching studies