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Supporting Information

Selenium-containing polyurethane with elevated catalytic stability for sustained nitric oxide release

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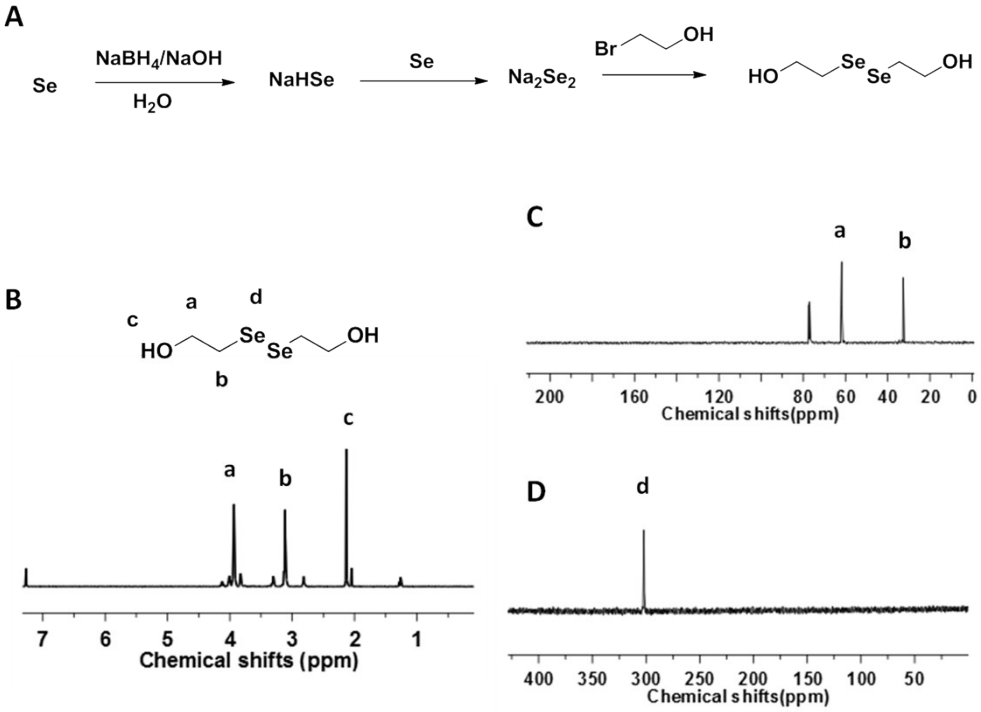

Fig. S1. (A) Synthesis route of SeDO. (B) ^{1}H NMR, (C) ^{13}C NMR and (D) ^{77}Se NMR spectra of SeDO.

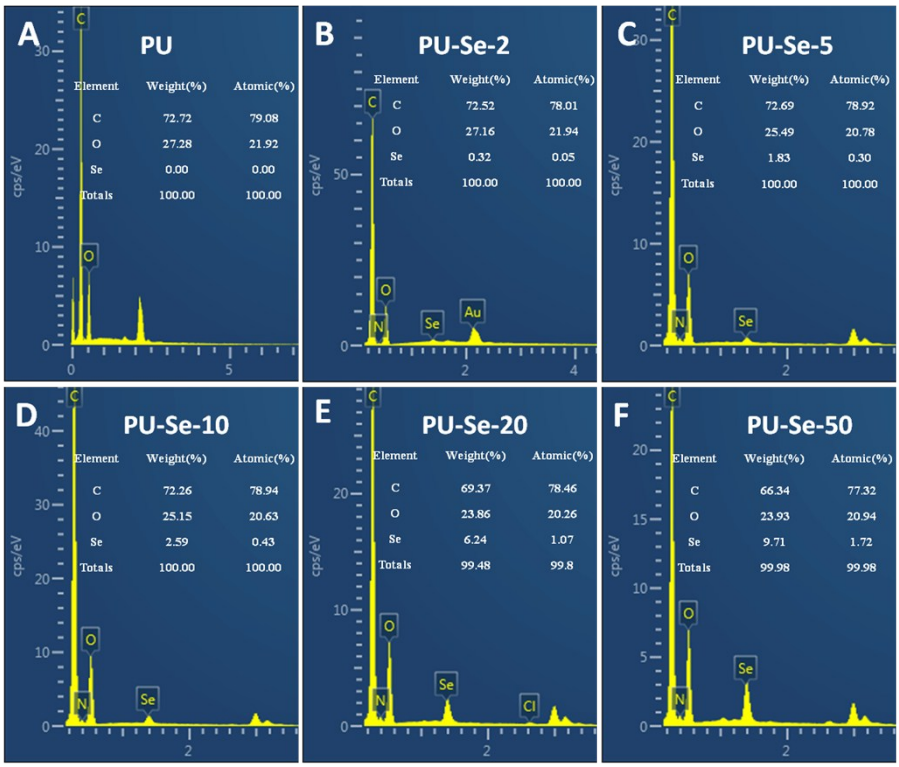

Fig. S2. EDS spectrograms of PU and PU/PU-Se blend films.

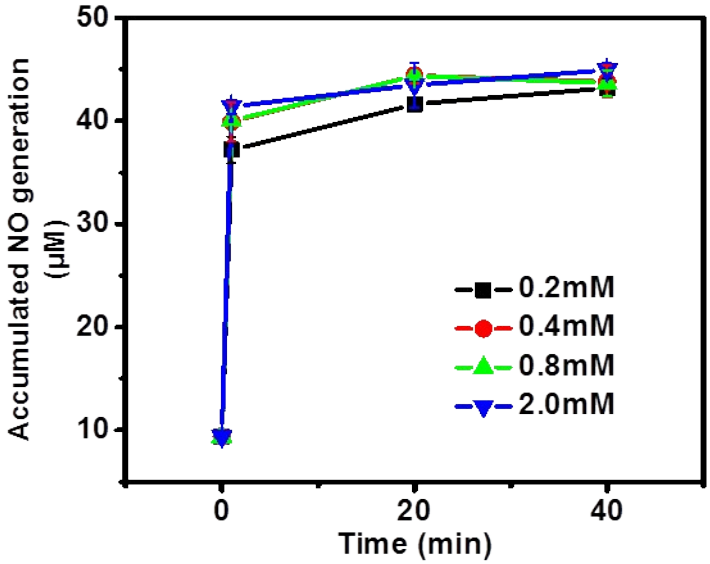

Fig. S3. Catalytic NO release curves of SeDO at different concentrations.

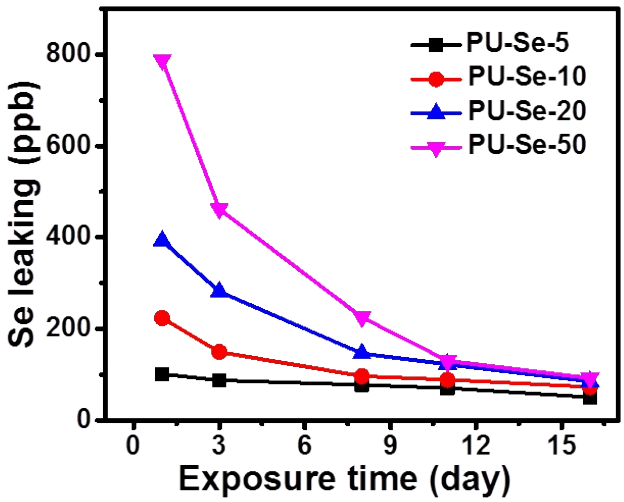

Fig. S4. Se leaking from PU/PU-Se films in PBS buffer containing 50μM GSH at 37 ^{o}C.

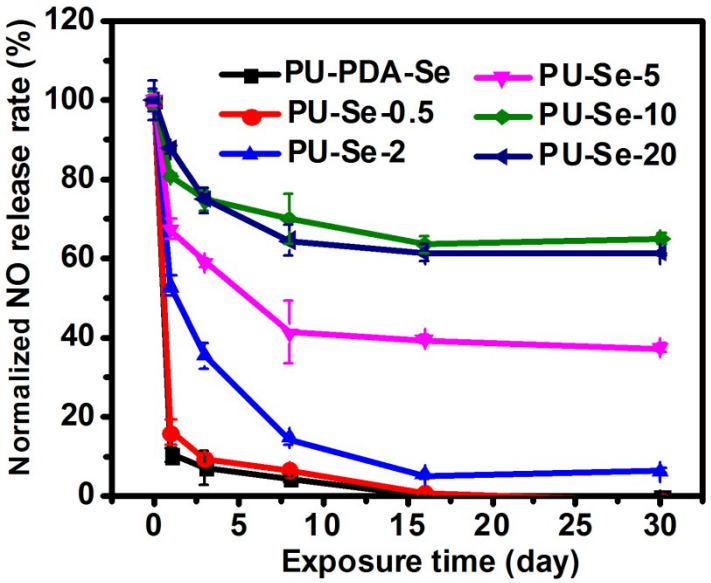

Fig. S5. Normalized NO release rate of PU-PDA-Se and PU/PU-Se films during exposure in PBS at 37 oC for different time.

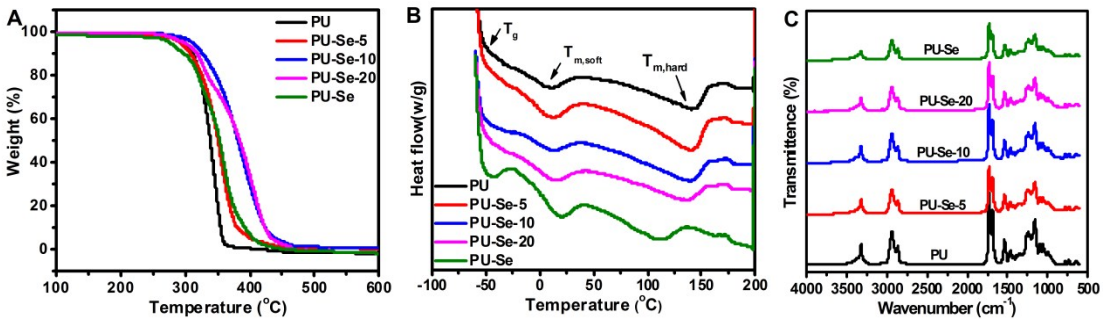

Fig. S6. (A) TGA and (B) DSC curves of different films under nitrogen atmosphere at the heating rate of 10 ^{o}C min^{-1}. (C) FT-IR spectra of different films.

It can be found that the decomposition temperatures (5% weight loss) were 300 and 270 ^{o}C for PU and PU-Se film, respectively. The blend films also showed the similar decomposition temperatures to PU (Fig.S6 A). DSC results showed that a T_g at about -45 ^{o}C was observed for these films (Fig.S6 B). PU exhibited a $T_{m,soft}$ at 9 ^{o}C and a $T_{m,hard}$ at 144 ^{o}C, while PU-Se showed a $T_{m,soft}$ at 19 ^{o}C and a $T_{m,hard}$ at 112 ^{o}C. The $T_{m,soft}$ and $T_{m,hard}$ of blend films were among that of PU and PU-Se. The films showed similar FT-IR spectra characteristic due to the similar polymer backbone (Fig.S6 C).