

Supplementary Information

Organoditelluride-Tethered Polymers that Spontaneously Generate Nitric Oxide when in Contact with Fresh Blood

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Content

- (1) Scheme for NOA measurement (Fig. 1s)**
- (2) NOA data (Figs. 2s & 3s)**
- (3) Amperometric NO sensor (Fig. 4s)**
- (4) NO and/or GSNO calibration for the NO & RSNO sensor (Fig. 5s)**

(1) Scheme for NOA measurement

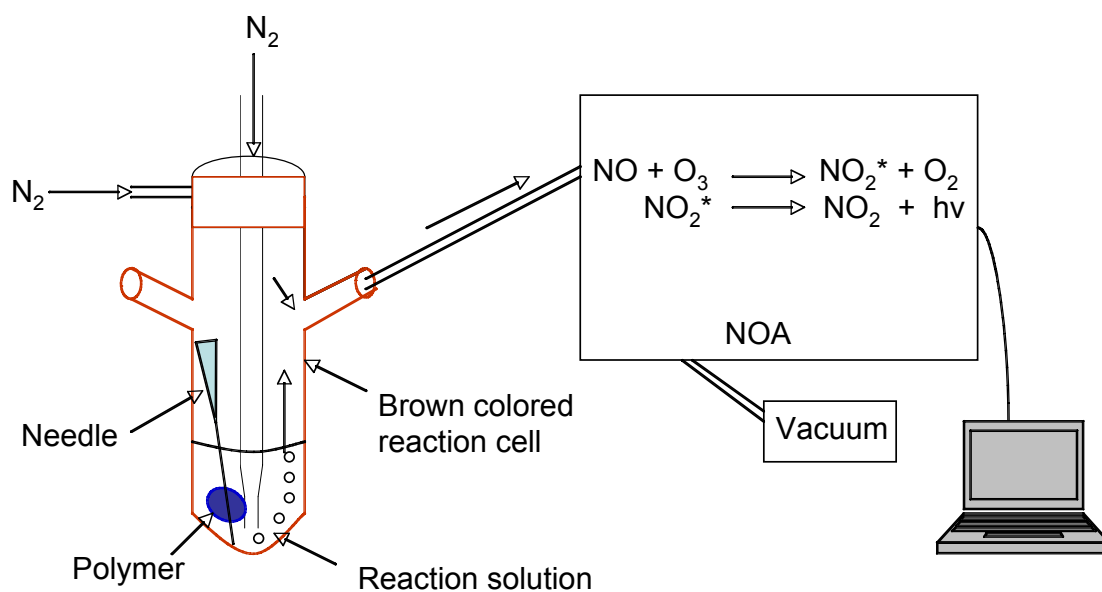


Fig. 1s. Scheme for NO measurement by inserting/removing a NO generating polymer with a stainless steel-needle into/from the reaction solution (RSNO and RSH in PBS buffer, pH 7.4, at RT) in an amber cell connected to the chemiluminescence nitric oxide analyzer (NOA).

(2) NOA Data

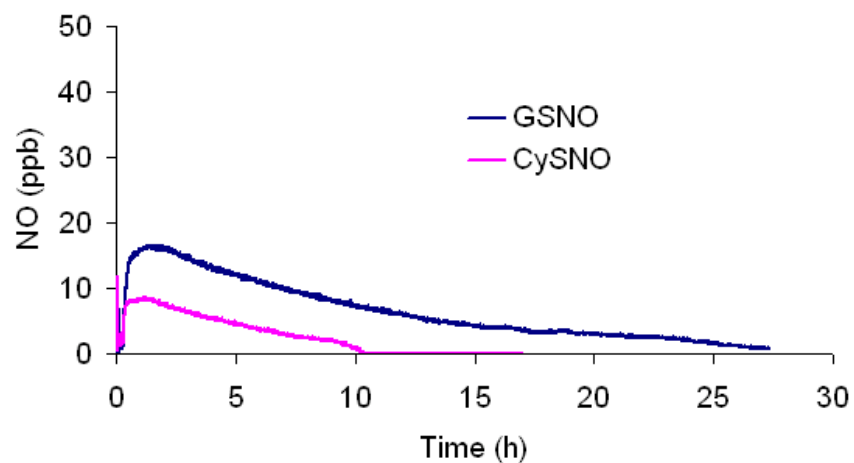


Fig. 2s. Polymer **3** (H film; 1 cm x 1 m x 50 μm)-mediated complete decomposition of low molecular weight endogenous RSNOs to NO; 50 μM GSNO/GSH (97 % conversion), or 10 μM CyNO/CySH (91% conversion) in 2 mL of PBS buffer, pH 7.4 containing 0.5 mM EDTA.

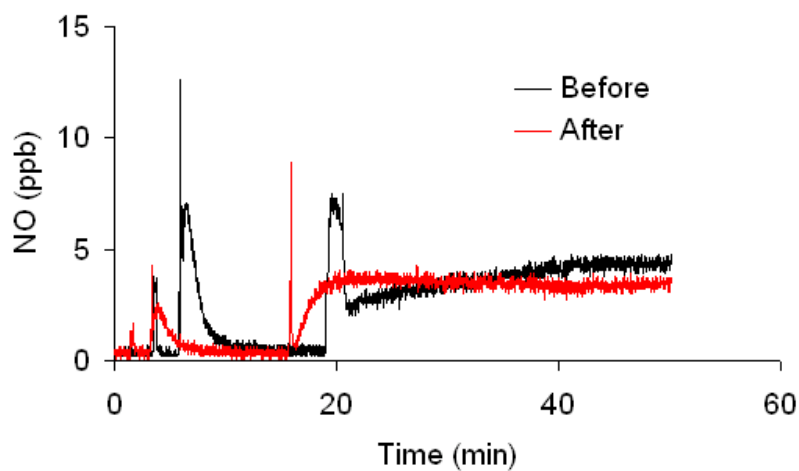


Fig. 3s. Comparison of NO flux of polymer **3** (L film; 1 cm x 1m x 50 μ m) before (black line) and after (red line) soaking in GSNO/GSH solution for 7 days at RT (10 μ L of 5 mM solutions were added daily to 5 mL of PBS buffer, pH 7.4, containing 0.1 mM EDTA) There is approx.a 21 % decrease in NO generation at steady-state level after soaking for 7 days (reaction condition; 50 μ M GSH/GSNO, 0.1mM EDTA in 2 mL of PBS buffer, pH 7.4).

(3) Amperometric NO sensor

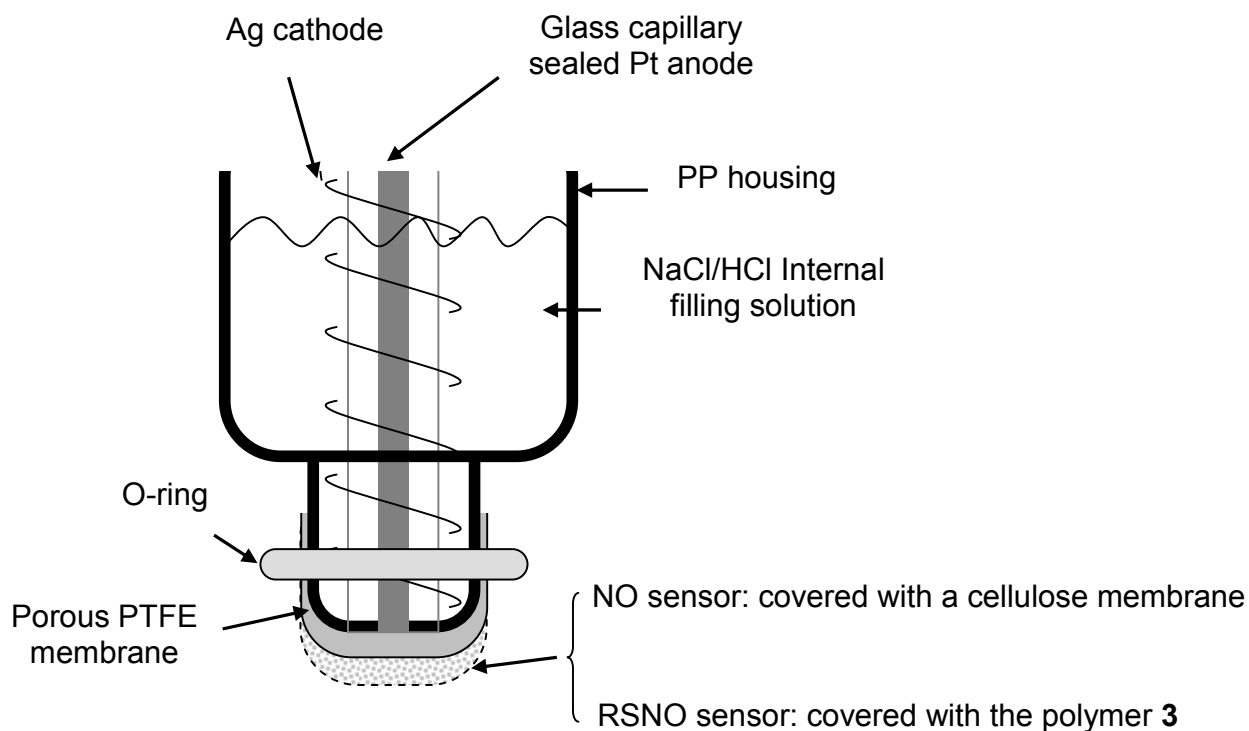


Fig. 4s. Typical configuration for both NO and RSNO sensor, where a cellulose membrane was mounted on the distance tip of the sensor for a control NO sensor, and polymer **3** was mounted instead of a blank cellulose membrane to prepare the RSNO sensor.

(4) NO and/or GSNO calibration for the NO & RSNO sensor

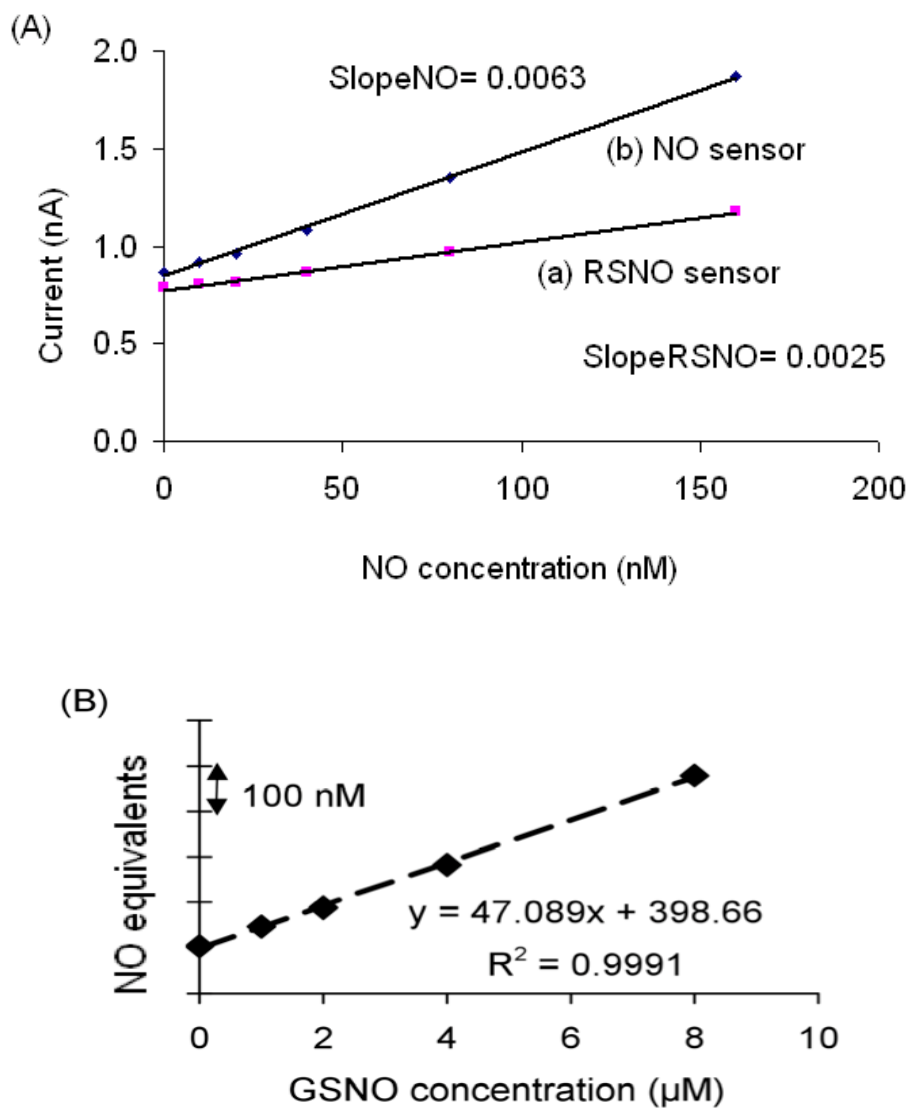


Fig. 5s. (A) Calibration curves for the inherent NO responses of both RSNO (a) and NO sensors (b) in the PBS buffer (pH 7.4, 100 mL) containing 0.1 mM EDTA at 35 °C; (B) calibration curve for the inherent GSNO response of RSNO sensor (a) in a blood sample (30 mL) diluted in PBS buffer (pH 7.4, 70 mL) containing 50 μM GSH and 0.1 mM EDTA at 35 °C.