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Electrochemical sensing by surface-immobilized poly(ferrocenylsilane) grafts†

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Fig S1. Thermogravimetric analysis of PFS 1.

Fig S2. Cyclic voltammogram of a) PFS 1 covalently bound to an amine-terminated SAM on gold; b) PFMDMS on the gold substrate with the cysteamine SAM; c) bare gold in 0.1 M NaClO₄ with Pt wires as the reference and counter electrode. All the substrates were soaked in THF overnight before measurements.
**Fig S3.** SEM image of the covalently anchored PFS film on silicon.

**Fig S4.** FTIR spectra of PFS 1 in bulk (bottom) and PFS brushes (top) on gold; (a) low energy region; (b) high energy region.

**Fig S5.** Cyclic voltammograms of PFS chains on gold at different scan rates, Pt reference and counter electrode. (a) In aqueous NaClO₄ (0.1 M); (b) in CH₂Cl₂ containing NBu₄PF₆ (0.1 M).
**Fig S6.** (a) Cyclic voltammogram and (b) remaining percentage of the CV current intensity in the oxidation process relative to time = 0 as a function of accumulated holding time at the specified potential. Experiments were carried out in aqueous NaClO₄ (0.1 M) using a Ag/AgCl reference electrode and a Pt counter electrode.