

SUPPLEMENTARY MATERIAL

SERR spectroelectrochemistry as a guide for rational design of DyP based bioelectronics devices

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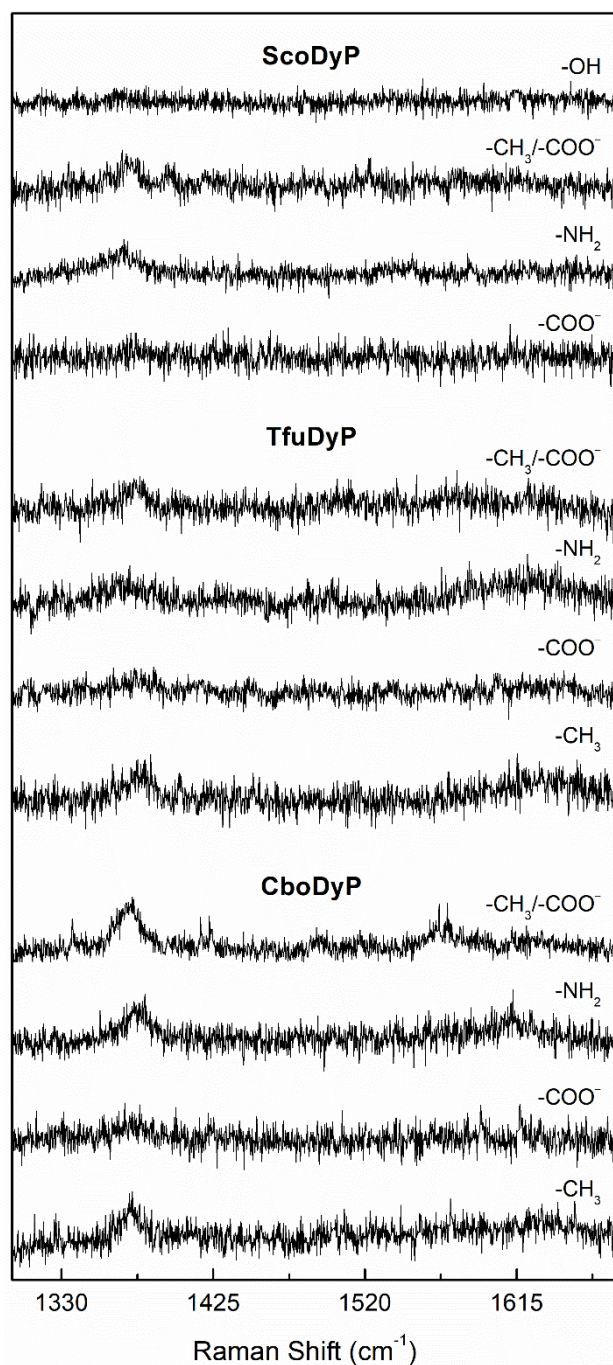


Figure S1. SERR spectra of ferric ScoDyP, TfuDyP and CboDyP immobilised on Ag electrodes coated with pure and mixed alkanethiol ($\text{HS}(\text{CH}_2)_n\text{-X}$, $\text{X} = \text{OH}$, CH_3 , COO^- and NH_2) SAMs. All spectra were acquired with 405 nm excitation at 21 °C, pH 7.

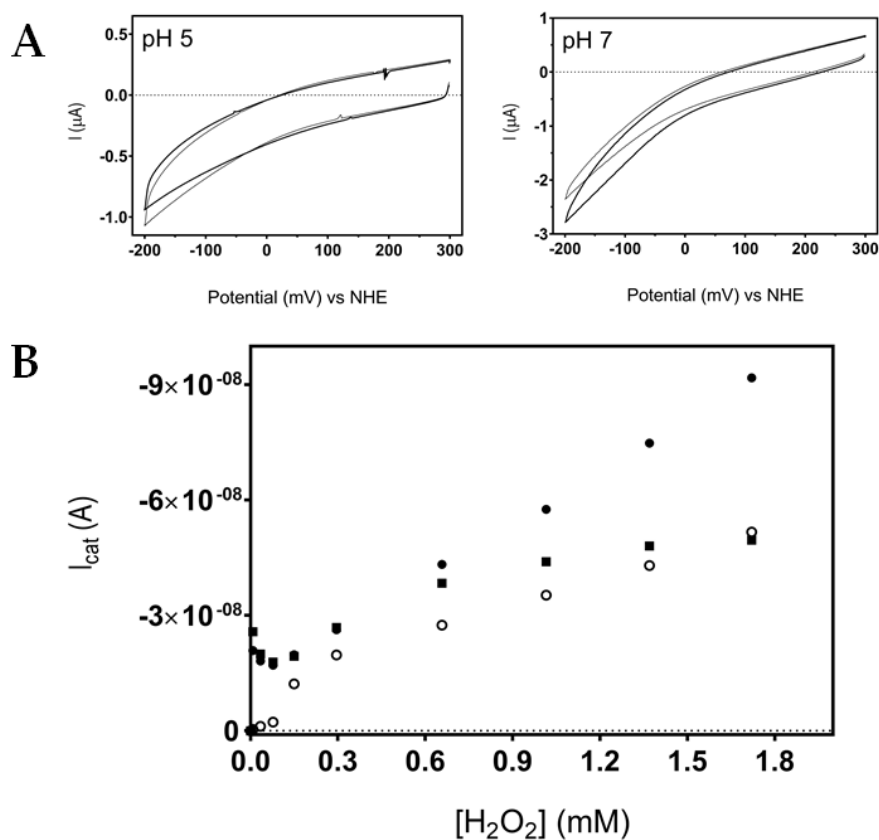


Figure S2. Electrochemical response of CboDyP immobilised on Ag electrodes coated with 1-undecanethiol : 11-amino-1-undecanethiol hydrochloride (M:M, 2:1) SAMs. **(A)** Cyclic voltammograms in absence (thin line) or presence (thick line) of H_2O_2 , 0.7 mM, measured at pH 5 (Britton-Robinson 40 mM, KCl 50 mM) and pH 7 (KPi 12.5 mM, K_2SO_4 12.5 mM). **(B)** Plots of catalytic current (I_{cat}) vs. H_2O_2 concentration for CboDyP-loaded electrodes (full circles and full squares) and for control electrodes without enzyme (open circles); currents were measured by amperometry at -100 mV vs. NHE, pH 7.