

Electronic Supplementary Information

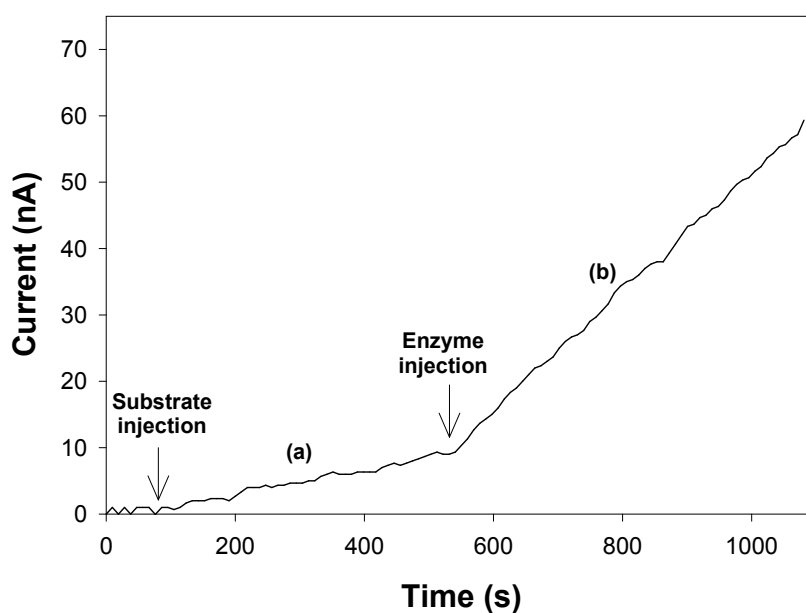


Figure S1. Spontaneous (a) and enzymatic (b) substrate hydrolysis. Supporting electrolyte: phosphate buffer pH 8.5, I 0.1 M. Substrate: butyrylcholine 1.75 mM. Enzyme: BChE 1 U L⁻¹. Electrode rotation rate: 200 rpm.

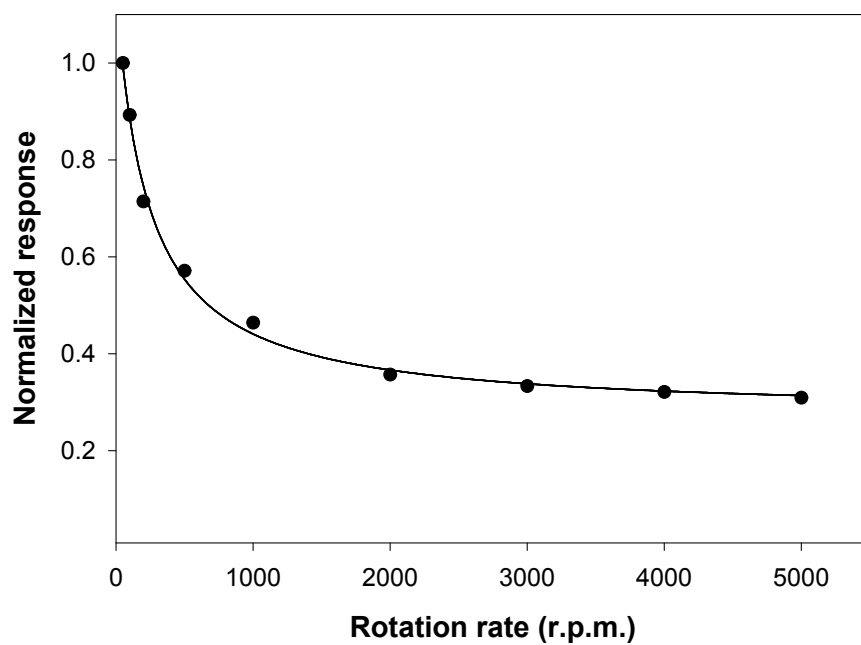


Figure S2. Variation of the current signal slopes as a function of the rotation rate at a Pt/PPyox/ChO biosensor upon addition of acetylcholine 1 mM and AChE 10 U L⁻¹. Supporting electrolyte: phosphate buffer pH 7.8, 1.0 M. Temperature: 25 °C.

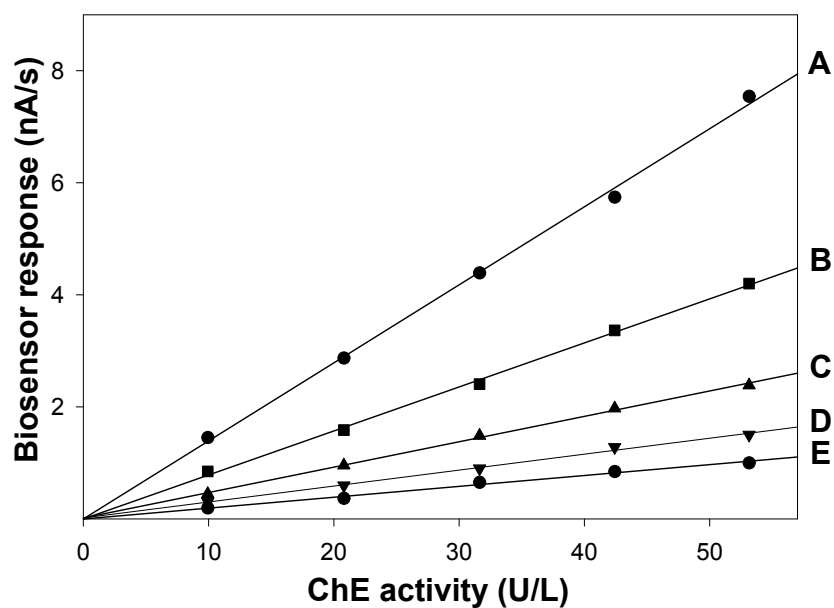


Figure S3 Calibration curves for various ChE/substrate couples: AChE/acetylcholine (A); BChE/butrylcholine (B); BChE/s-butrylthiocholine (C); BChE/benzoylcholine (D); BChE/acetylcholine (E). Substrate concentration: 1 mM. Supporting electrolyte: phosphate buffer pH 7.8, I 0.1 M. Temperature: 25 °C. Electrode rotation rate: 200 rpm.