Electronic Supplementary Material (ESI) for Analytical Methods

Electronic Supplementary Material

A Polymeric Dual-Channel Biosensor Chip Capable of Symmetrically Splitting Sample Bands for Parallel Micro Flow Injection Determination of Glucose and Lactate

Yi Wang, Qiaohong He*, Xianqiao Hu, Yiwen Zhang, Hengwu Chen

Institute of Micro-analytical Systems, Department of Chemistry, Zhejiang University, Zijin'gang Campus, Hangzhou 310058, China

*Author to whom correspondence should be addresses; E-mail: heqh@zju.edu.cn; Tel.: +86-571-88206773; Fax: +86-571-88273572

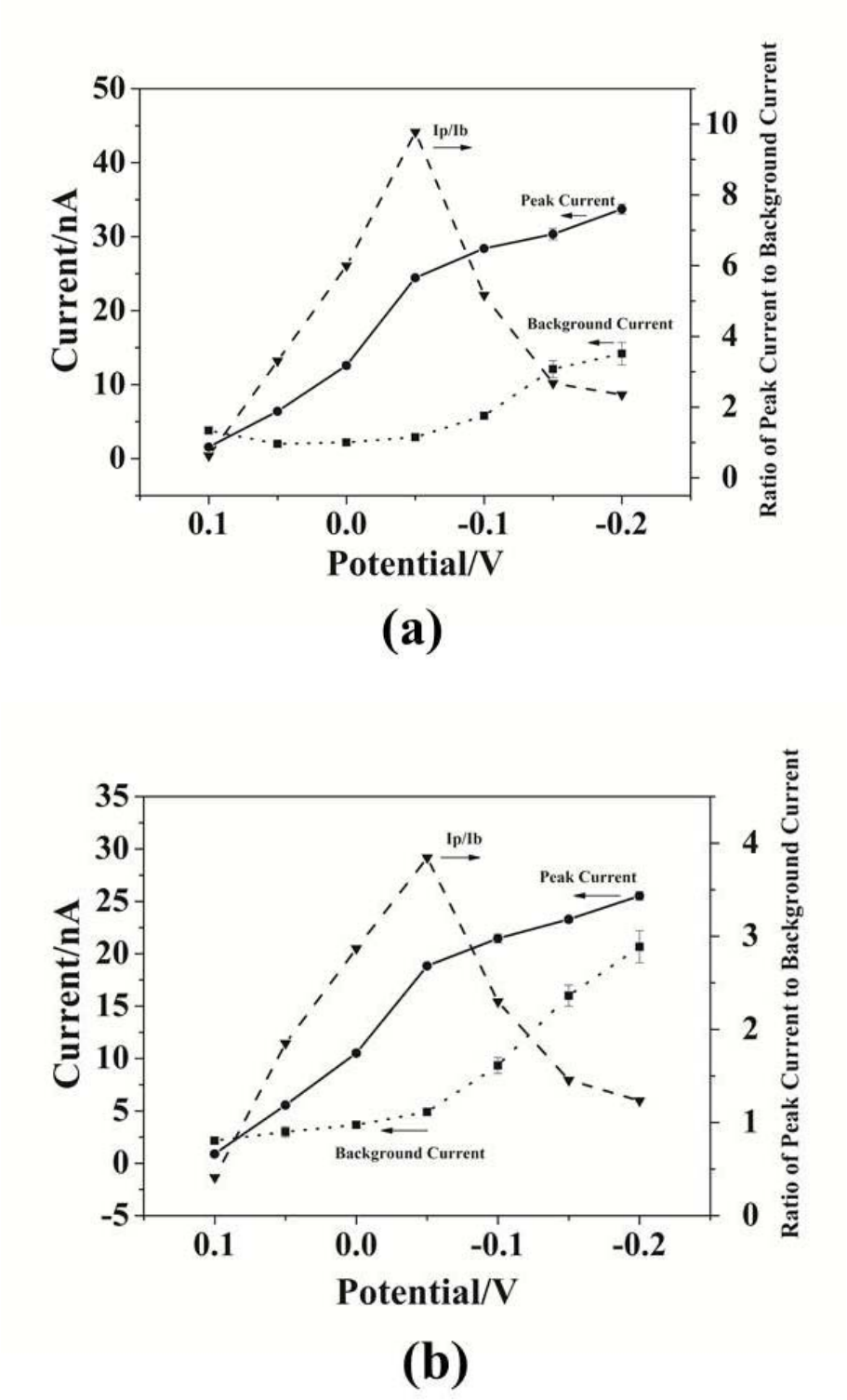

Fig. S1 Hydrodynamic voltammograms of glucose (a) and lactate (b) obtained with the developed μ-FI-AB chip. Peak current (I_p) (solid line), background current (I_b) (dot line) and ratio of I_p-to-I_b (dash line). Experimental conditions: carrier solution, 30 mmol L^{-1} phosphate buffer (pH 7.4); carrier flow rate, 6 μL min^{-1}; sample volume, 20 nL

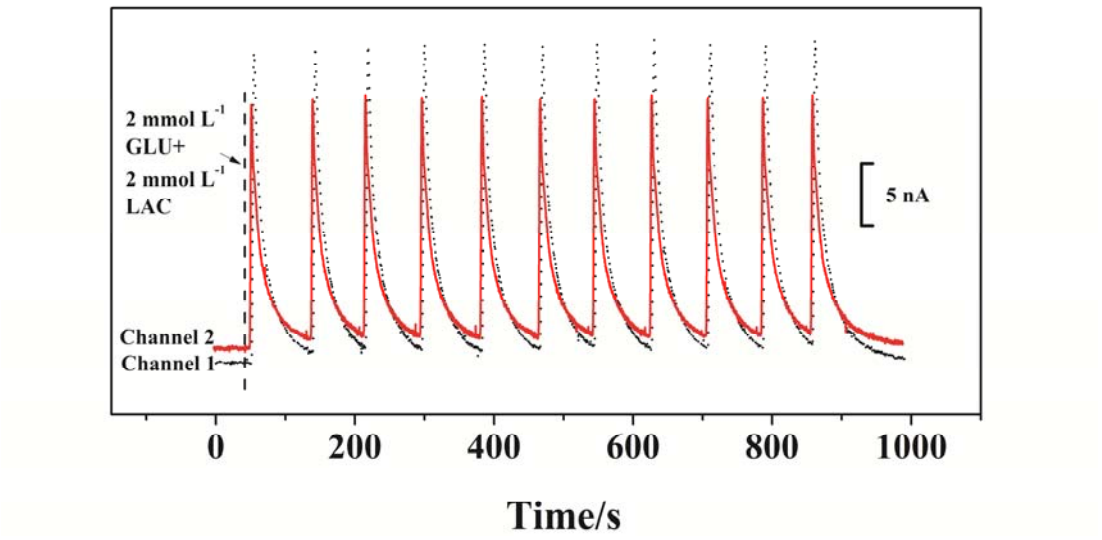

Fig. S2 Typical recording traces of 11 consecutive runs with a glucose (black) or a lactate (red) standard solution. Experimental conditions: carrier solution, 30 mmol L^{-1} phosphate buffer (pH 7.4); detection potential, -0.05 V; carrier flow rate, 6 μL min^{-1}; sample volume, 20 nL