

Supplementary

Screen Printed Electrode Based Detection Systems for the Antibiotic Amoxicillin in Aqueous Samples Utilising Molecularly Imprinted Polymers as Synthetic Receptors

Oliver Jamieson ¹, Thais C. C. Soares ², Beatriz A. de Faria ³, Alexander Hudson ¹, Francesco Mecozzi ⁴, Samuel J. Rowley-Neale ^{4,5}, Craig E. Banks ^{4,5}, Jonas Gruber ³, Katarina Novakovic ¹, Marloes Peeters ¹ and Robert D. Crapnell ^{4,*}

¹ School of Engineering, Newcastle University, Merz Court, Claremont Road, Newcastle Upon Tyne NE1 7RU, UK; O.D.Jamieson2@newcastle.ac.uk (O.J.); Alex.Hudson@newcastle.ac.uk (A.H.); katarina.novakovic@newcastle.ac.uk (K.N.); Marloes.Peeters@newcastle.ac.uk (M.P.)

² Departamento de Engenharia Química, Escola Politécnica, Universidade de São Paulo, Avenida Prof. Luciano Gualberto, trav. 3, 380, CEP 05508-900 São Paulo, SP, Brazil; Thaissoares@usp.br

³ Departamento de Química Fundamental, Instituto de Química, Universidade de São Paulo, Av. Prof. Lineu Prestes, 748, CEP 05508-000 São Paulo, SP, Brazil; Beatrizandrade@gmail.com (B.A.d.F.); jogruber@iq.usp.br (J.G.)

⁴ Faculty of Science and Engineering, Manchester Metropolitan University, John Dalton Building, Chester Street, Manchester M1 5GD, UK; F.Mecozzi@mmu.ac.uk (F.M.); S.Rowley-Neale@mmu.ac.uk (S.J.R.-N.); C.Banks@mmu.ac.uk (C.E.B.)

⁵ Manchester Fuel Cell Innovation Centre, Manchester Metropolitan University, Chester Street, Manchester M1 5GD, UK

* Correspondence: R.Crapnell@mmu.ac.uk

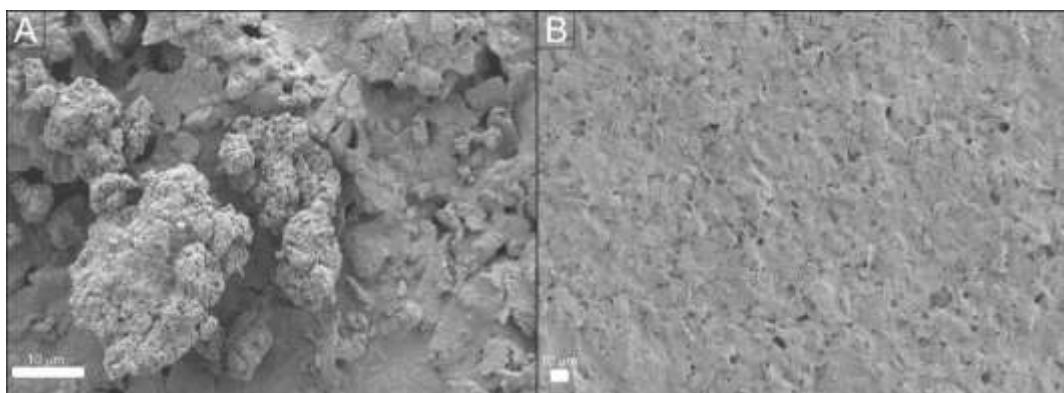


Figure S1. (A) SEM image (2000 \times magnification) of MIP 2 microparticles immobilized onto an SPE using polypyrrole. (B) SEM image (1000 \times magnification) of thin film of polymer made directly on an SPE.

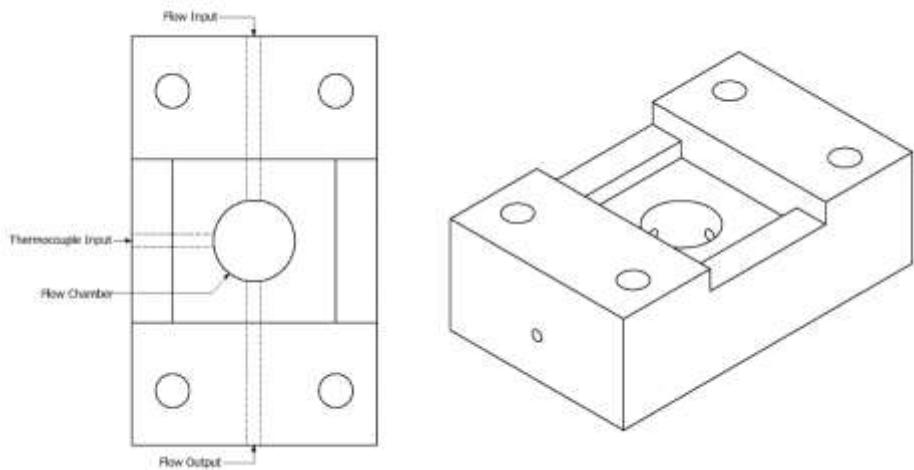


Figure S2. Schematic image of the flow cell used in the experiments. The SPE is placed in the central chamber, which is sealed with an O-ring. The thermocouple (T_2) is measured throughout the experiment (1 second = 1 data point). Solutions of analyte are injected into the inflow and the system is allowed to stabilise for 30 min before the next injection.