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Molecularly Imprinted Polymeric Coatings for Sensitive and Selective Gravimetric Detection of Artemether

Supporting Information

Usman Arshad[1], Adnan Mujahid*[1], Peter Lieberzeit[2], Adeel Afzal*[3], Sadia Zafar Bajwa[4], Naseer Iqbal[3], Sumaira Roshan[1]

[1] Institute of Chemistry, University of the Punjab, Lahore-54590, Pakistan

[2] Department of Physical Chemistry, University of Vienna, Waehringer Strasse 42, A-1090, Vienna, Austria

[3] Department of Chemistry, College of Science, University of Hafr Al Batin, PO Box 1803, Hafr Al Batin, 39524, Saudi Arabia

[4] National Institute for Biotechnology and Genetic Engineering, Jhang Road, Faisalabad, Pakistan

* Corresponding authors. Email: adnan.mujahid@pu.edu.pk; aa@aafzal.com

Content

Table S1: Recipes using different combinations of monomers and solvents for the synthesis of MIPs at 60°C.

MIP systems	MAA	EGDMA	MMA	Styrene	DVB	Artemether	AIBN	Solvent
Recipe 1	✓ (15 µL)	✓ (30 µL)	-	-	-	✓ (5 mg)	✓ (5 mg)	DMSO (600 µL)
Recipe 2	✓ (8 µL)	-	-	✓ (8 µL)	✓ (60 µL)	✓ (5 mg)	✓ (5 mg)	THF (1000 µL)
Recipe 3	-	-	-	✓ (15 µL)	✓ (60 µL)	✓ (5 mg)	✓ (5 mg)	THF (1000 µL)
Recipe 4	-	-	-	✓ (15 µL)	✓ (60 µL)	✓ (5 mg)	✓ (5 mg)	DMF (1000 µL)
Recipe 5	✓ (8 µL)	✓ (32 µL)	✓ (8 µL)	-	-	✓ (5 mg)	✓ (5 mg)	DMSO (600 µL)

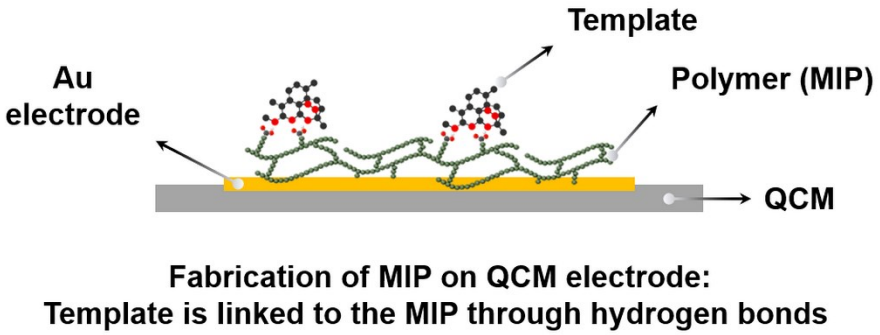

Figure S1. A schematic of the MIP-QCM sensor showing the fabrication of MIP on the surface of Au electrode. The prepolymer containing self-organized oligomers and template molecules are spin coated and polymerized to fabricate MIP-QCM sensors for artemether detection. The non-covalent interactions such as hydrogen bonds between H-bond acceptor artemether and H-bond donor methacrylic acid derive imprinting and impart selectivity to the MIP.

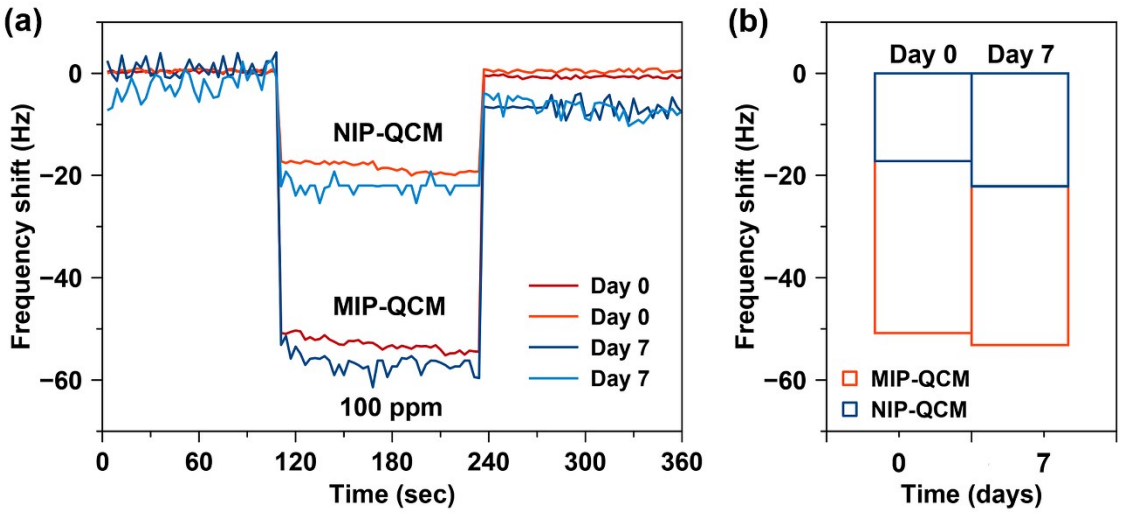

Figure S2. (a) The sensor response of MIP-QCM and NIP-QCM layers after a week of testing, (b) the numerical differences in the sensor response of respective sensors on day '0' and day '7'. Both MIP-QCM and NIP-QCM sensors show good inter-day stability.