**Supporting Materials**

**Disposable paracetamol sensor based on electroactive molecularly imprinted polymer nanoparticles for plasma monitoring**

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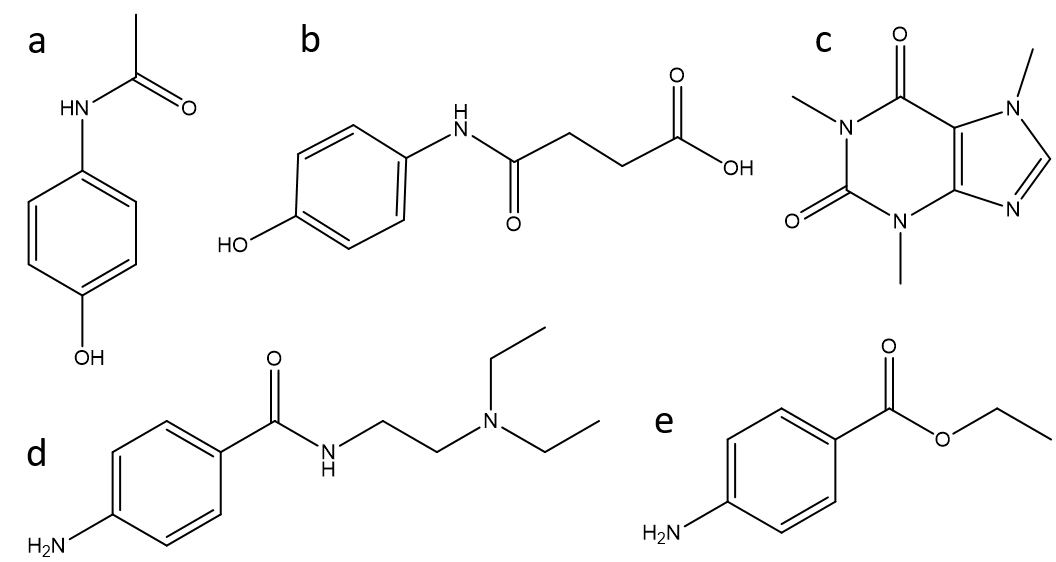
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**Figure S1**. Chemical structures of (a) paracetamol, (b) carboxyl-paracetamol, (c) caffeine, (d) procaine amide, and (e) benzocaine.





**Figure S2**. FT-IR spectra recorded for (A) NanoMIP with no paracetamol and (B) NanoMIP treated with paracetamol.

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| **Figure S3**. DPV responses for (a) bare SPCE, (b) SPCE/APTES and (c) SPCE/APTES/NanoMIPs in 5mM PBS (1) and in presence of 800 µM of paracetamol solution(2). |



**Figure S4**. DPV responses of ferrocene methyl methacrylate (1µM in 5mM PBS) recorded at SPCE.

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| **Figure S5**. Paracetamol calibration plot obtained for sensors fabricated by varying the concentration of immobilised NanoMIPs from (a) 2, (c) 1, (e) 0.5 and (g) 0.2 mg mL-1, the response to paracetamol buffer standards was measured from 0.01 to 2 mM. The resulting working range is displayed for sensors prepared at (b) 2, (d) 1, (f) 0.5 and (h) 0.2 mg mL-1 | |

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| **Table S1**. Sensor performance dependant of the NanoMIP concentration | | | | |
|  | **a** | **b** | **c** | **d** |
| NanoMIP concentration (mg mL-1) | 0.2 | 0.5 | 1.0 | ***2.0*** |
| Sensitivity (-1) | 6.71 ± 0.24 | 7.27 ± 0.24 | 13.32 ± 0.26 | ***9.83 ± 0.20*** |
| Working range (mM) | 0.01-0.8 | 0.02-0.8 | 0.06-1 | ***0.1-1.4*** |
| LOD (m | 0.11 | 0.10 | 0.06 | ***0.06*** |
| R2 | 0.998 | 0.991 | 0.997 | ***0.997*** |
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