Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

Potential-gated molecularly imprinted smart electrode for nicotinamide analysis

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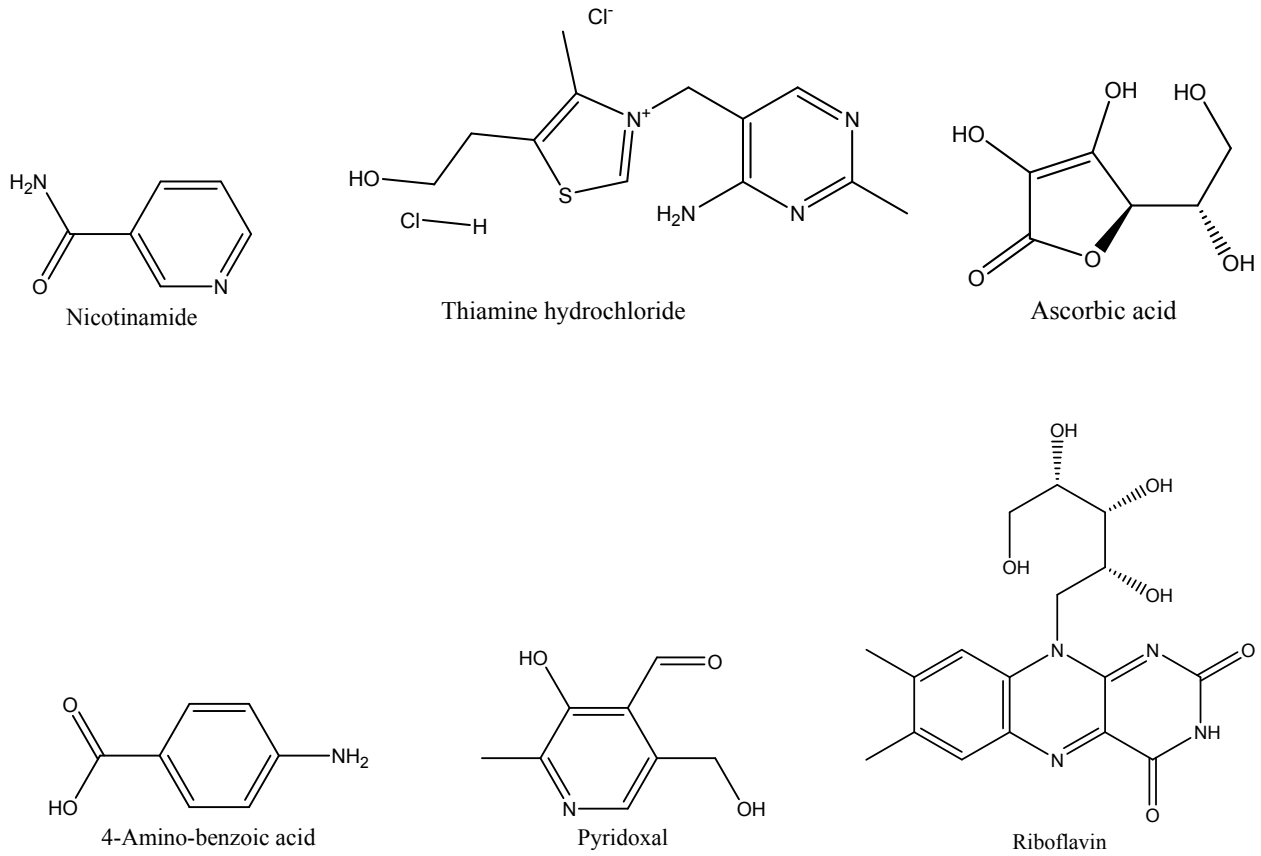

Fig. S1. Chemical structure of nicotinamide, thiamine hydrochloride, ascorbic acid, 4-Amino-benzoic acid, pyridoxal, riboflavin.

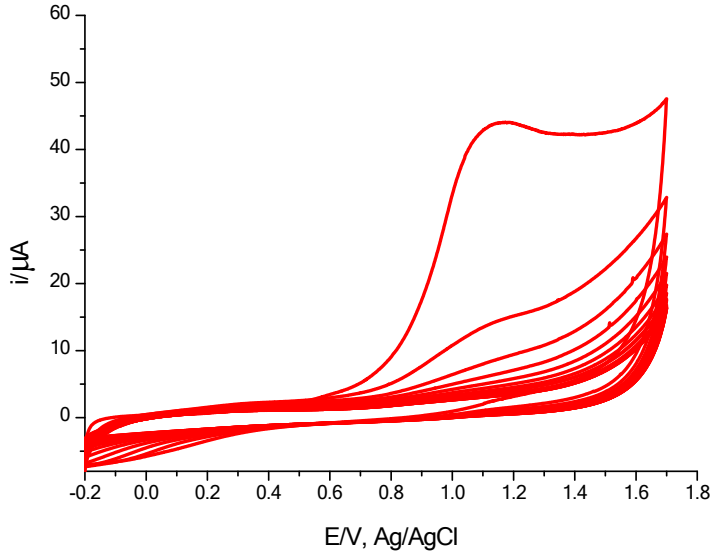

Fig. S2. Preparation of NIP electrode via electropolymerisation of pyrrole. Cyclic voltammogram for pyrrole electropolymerisation at a glassy carbon electrode. (Py: 50.0 mM, sodium perchlorate: 100.0 mM in aqueous solution, number of cycles = 16, potential range -0.2 to +1.7 V and scan rate 100 mV s^{-1}).

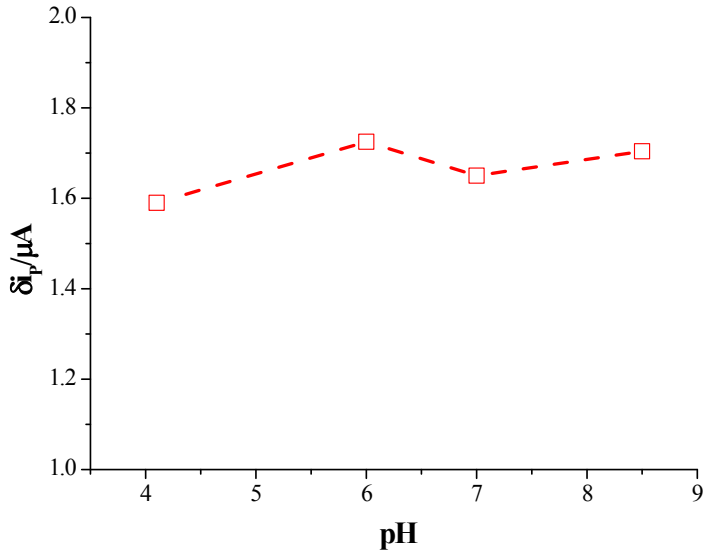

Fig. S3. Optimisation of factor affecting the performance of the modified electrode. Effect of pH on δi_p at the NAM/MIP-GCE in the solutions containing 0.5 mM $K_3Fe(CN)_6$, 0.5 mM $K_4Fe(CN)_6$, 0.1 M KCl in the presence of 15.0 μM nicotinamide after 10 min incubation time.

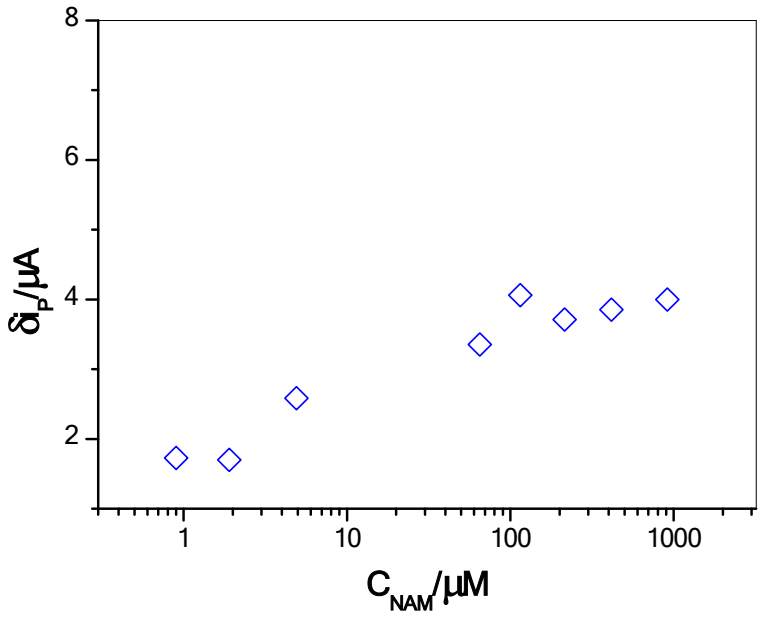

Fig. S4. The relationship between logarithm of the concentration of NAM and the current response of $[Fe(CN)_6]^{3-}/[Fe(CN)_6]^{4-}$ on NIP-GCE.