

SUPPLEMENTARY MATERIALS

Thermodynamic and voltammetric studies on Carnosine and Ferrocenyl-carnosine for sensing applications

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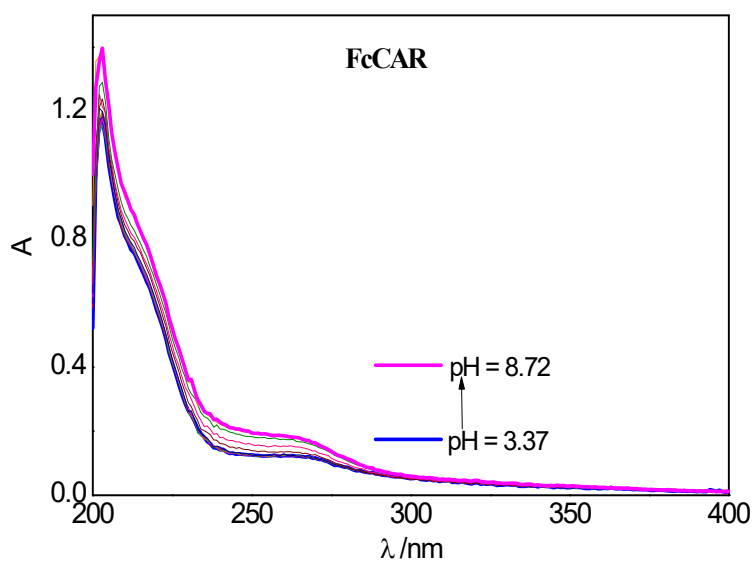


Fig. S1. Spectrophotometric titrations of the FcCAR (**L**) (0.1 mmol L⁻¹) in NaCl aqueous solution at I = 0.15 mol L⁻¹ and T = 298.15 K.

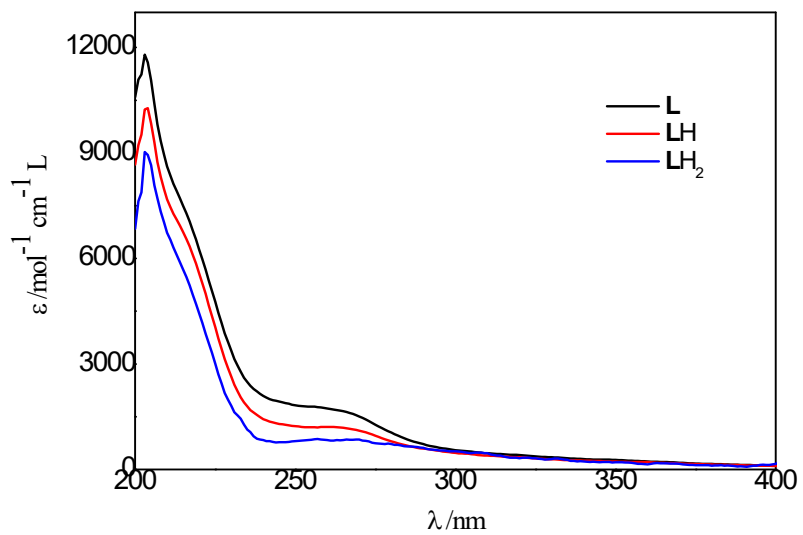
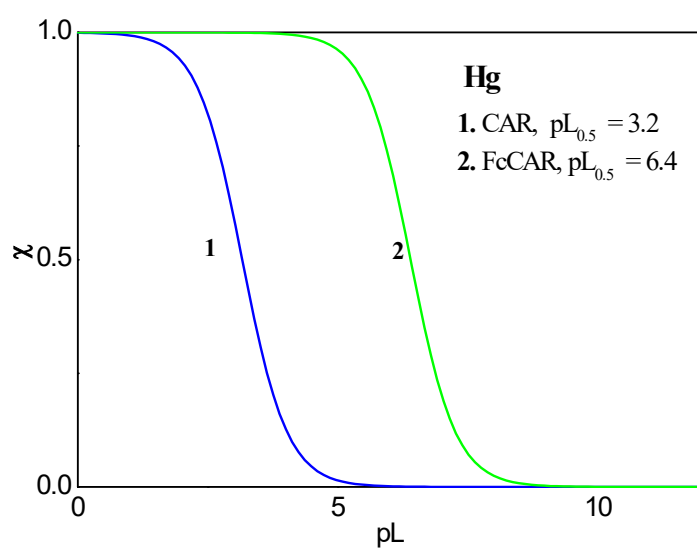
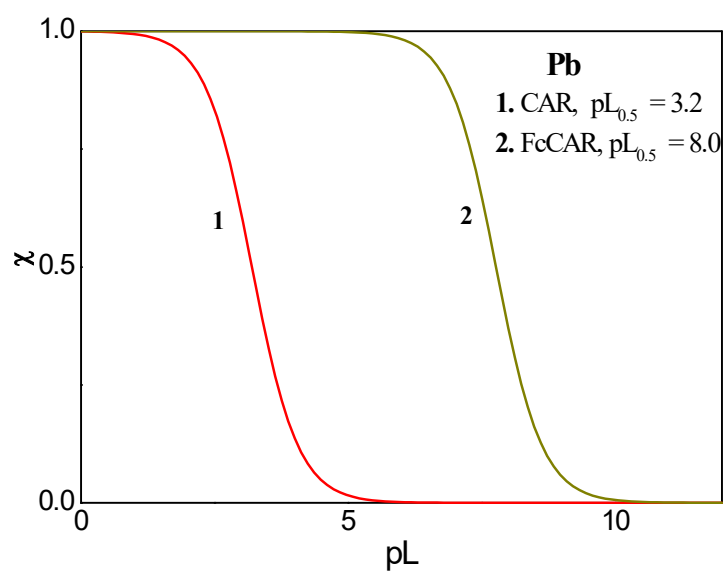


Fig. S2. ϵ vs. λ of the differently deprotonated FcCAR (L) species in NaCl aqueous solution at $I = 0.15 \text{ mol L}^{-1}$ and $T = 298.15 \text{ K}$.



(a)



(b)

Fig. S3. Sequestering diagrams of CAR and FcCAR towards (a) Hg^{2+} and (b) Pb^{2+} at $pH = 7.4$, $I = 0.15 \text{ mol L}^{-1}$ (NaCl) and $T = 298.15 \text{ K}$.

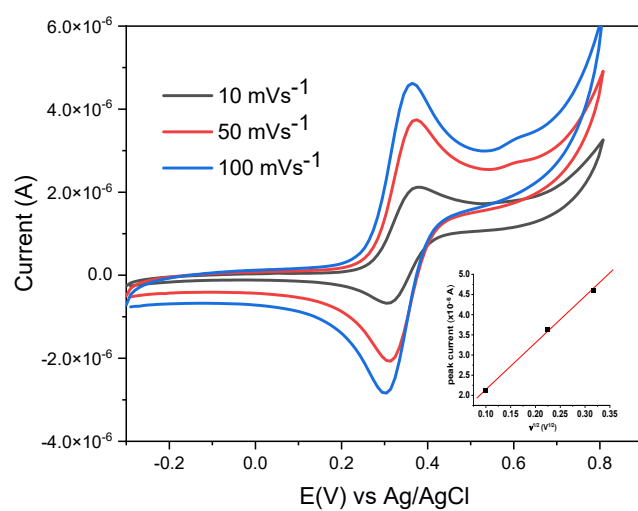


Fig. S4. CVs of FcCAR (1 mmol L⁻¹) in 0.1 mol L⁻¹ KCl aqueous solution and rt at 10 mV s⁻¹, 50 mV s⁻¹ and 100 mV s⁻¹ (pH = 7). Inset: plot of peak current vs. the square root of the scan rate with linear fit.