

***Supporting Information***

**Engineered carbon-electrode with graphene-cyclodextrin/ ferrocenyl-carnosine nanoassembly for Mn(II) detection**

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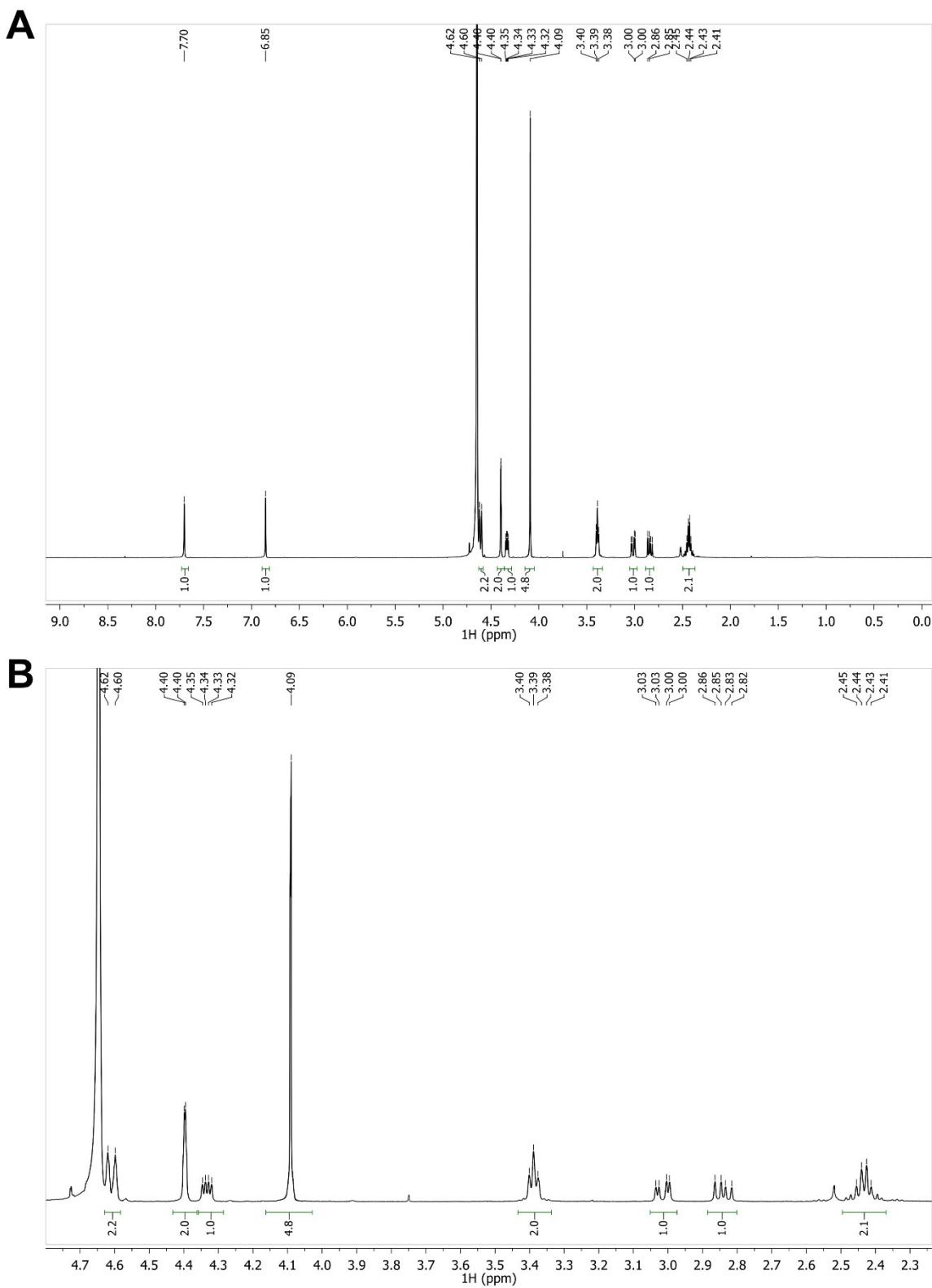
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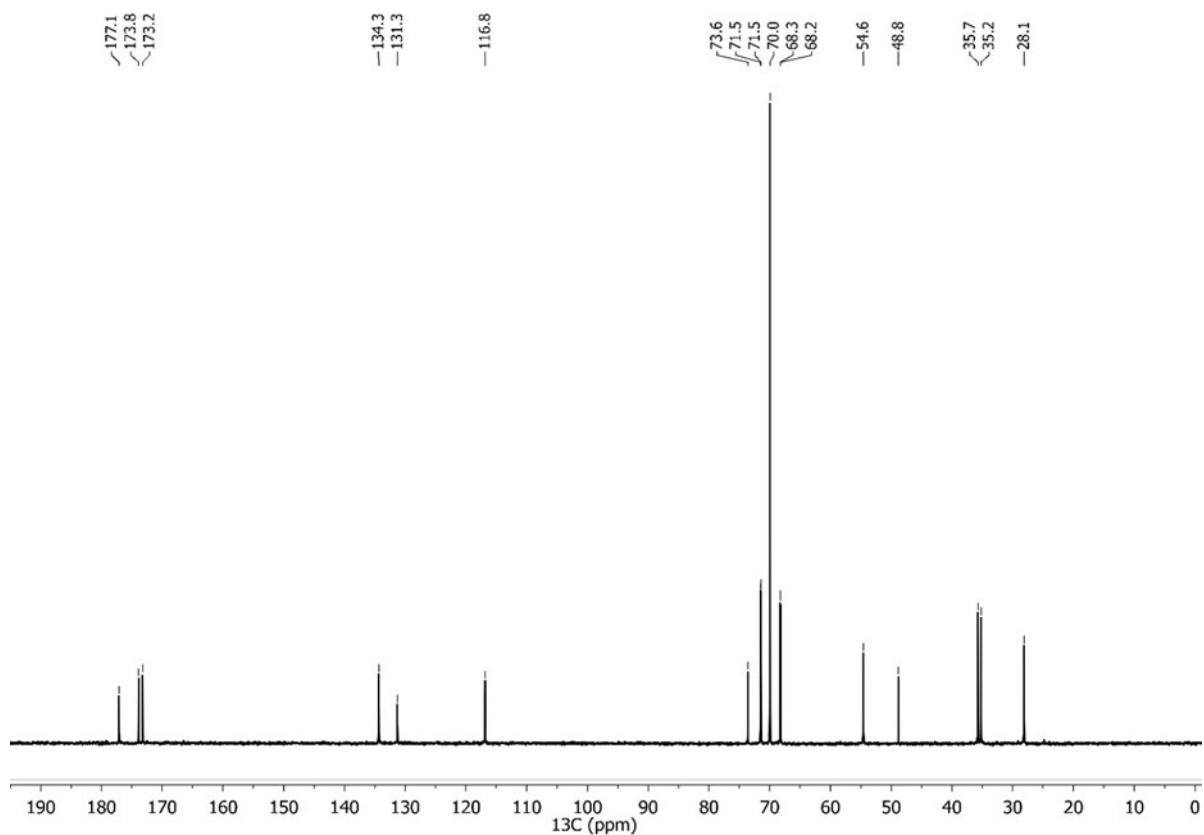
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**SUMMARY**

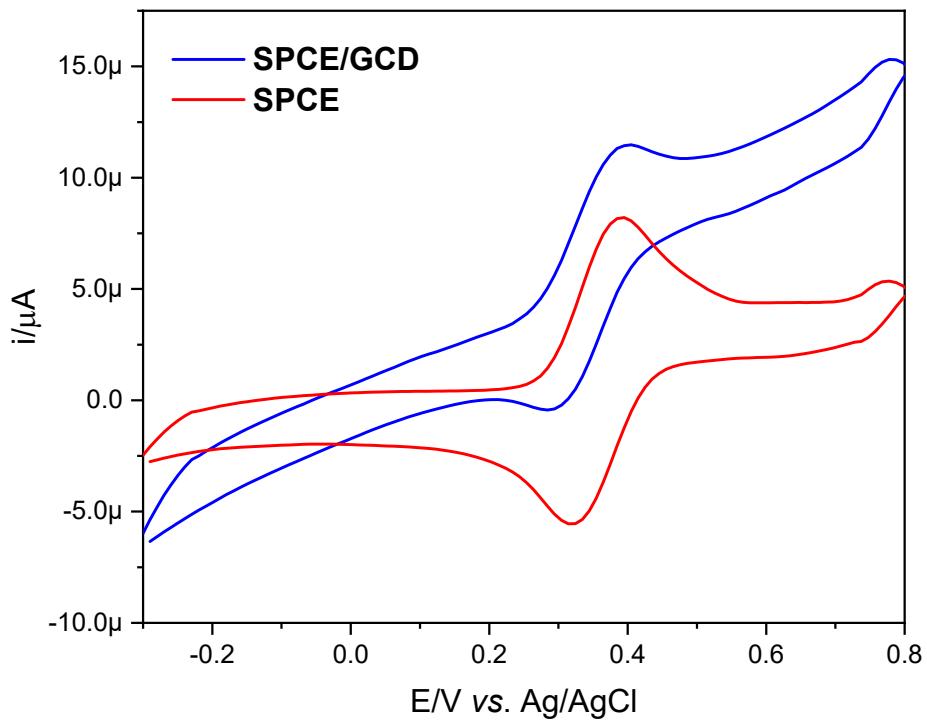
<b>Figure S1</b>	<b>2</b>
<b>Figure S2</b>	<b>3</b>
<b>Figure S3</b>	<b>4</b>
<b>Figure S4</b>	<b>4</b>
<b>Figure S5</b>	<b>5</b>



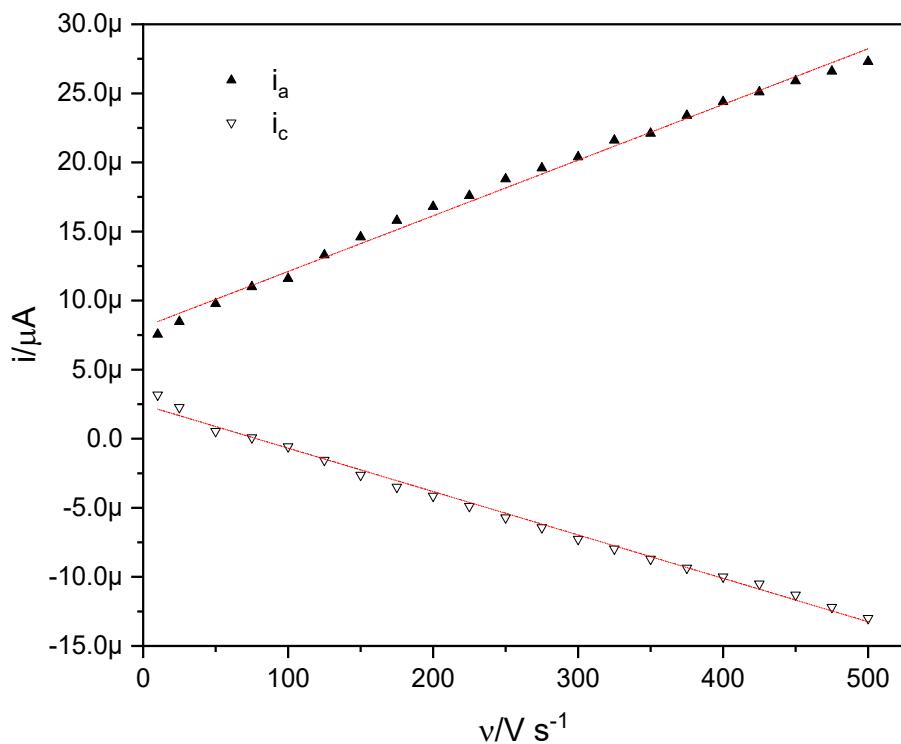
**Fig. S1.**  $^1\text{H}$ -NMR ( $\text{D}_2\text{O}$ , 500 MHz) of FcCAR (A), and a magnified area from 2.2 to 4.8 ppm (B).



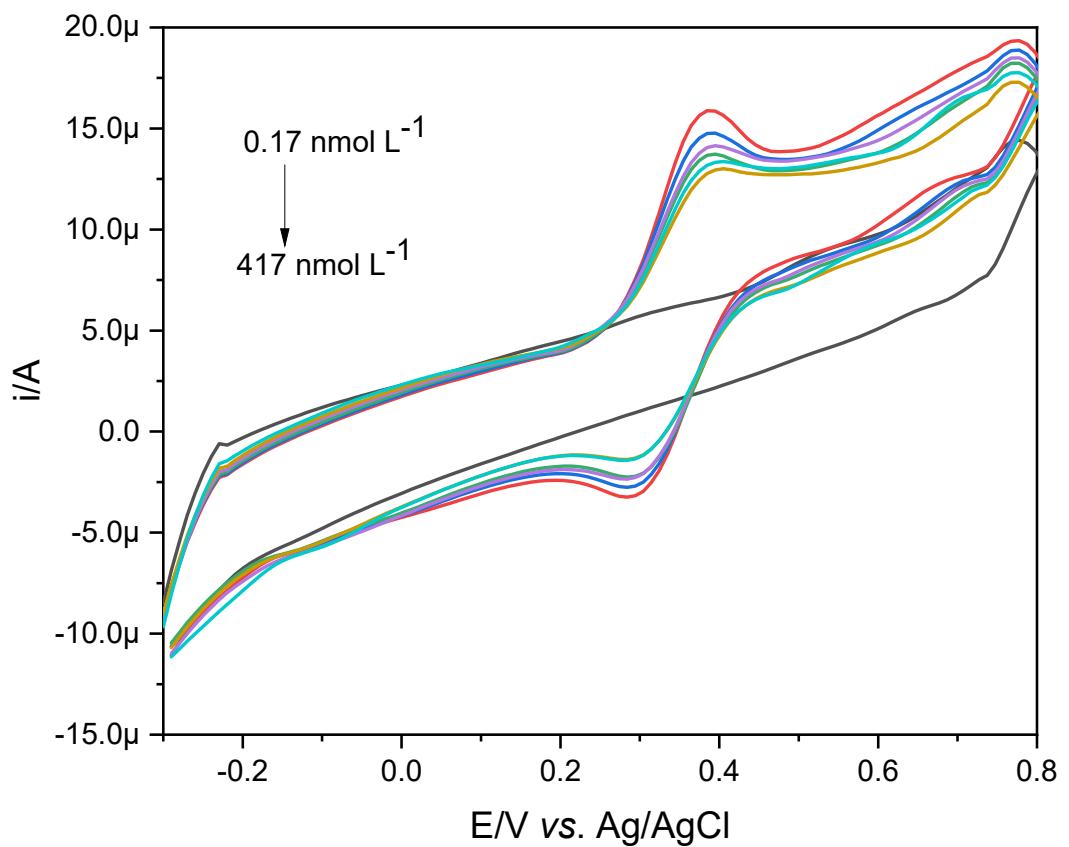
**Fig. S2.** <sup>13</sup>C-NMR (<sup>2</sup>D<sub>2</sub>O, 125 MHz) of FcCAR.



**Fig. S3.** CV response (at  $0.1 \text{ V s}^{-1}$ ) of FcCAR ( $0.5 \text{ mmol L}^{-1}$ ) in KCl ( $0.1 \text{ mol L}^{-1}$ ) on SPCE/GCD (blue line) and SPCE (red line).



**Fig. S4.** Dependence of anodic ( $i_a$ ) and cathodic ( $i_c$ ) peak currents on the scan rate ( $v$ ) for FcCAR ( $0.5 \text{ mmol L}^{-1}$ ) in KCl ( $0.1 \text{ mol L}^{-1}$ ) on SPCE/GCD.



**Fig. S5.** CVs of FcCAR ( $0.5 \text{ mmol L}^{-1}$ ) at different Mn(II) concentration, compared with the CV of the only Mn(II) ( $0.8 \text{ nmol L}^{-1}$ , grey), in KCl ( $0.1 \text{ mol L}^{-1}$ ) on SPCE/GCD.