Communication

Performance Comparison of Solid Lead Ion Electrodes with Different Carbon-Based Nanomaterials as Electron-Ion Exchangers

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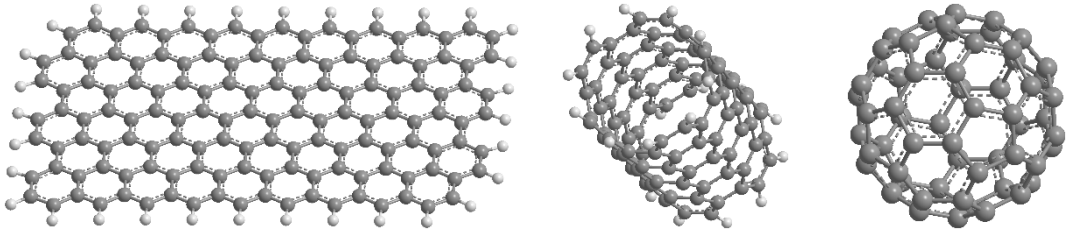

(**a**) (**b**) (**c**)

Figure S1. Schematic of carbon-based nanomaterial structure. (**a**) GR. (**b**) CNT. (**c**) C_{60}.

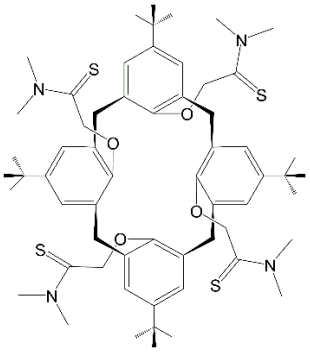

Figure S2. The structure of the lead ionophore IV, 4-tert-butylcalix [4] arene-tetrakis (N,N-dimethylthioacetamide).

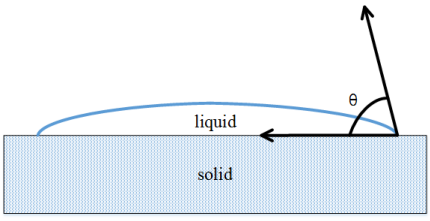

Figure S3. Schematic of a sessile-drop contact angle system

Table S1. Comparison of GC/GR/Pb^{2+}-ISEs with different volume of Pb^{2+}-ISM characteristics.

Volume (μL)	Slope (mV/decade)	LDL (mol/L)	Response time (s)
10	24.7	9.1×10^{-8}	50.7
15	25.2	6.9×10^{-8}	42.0

20	26.8	3.4×10^{-8}	42.6
25	25.9	6.4×10^{-8}	49.1
30	24.9	1.0×10^{-7}	53.5

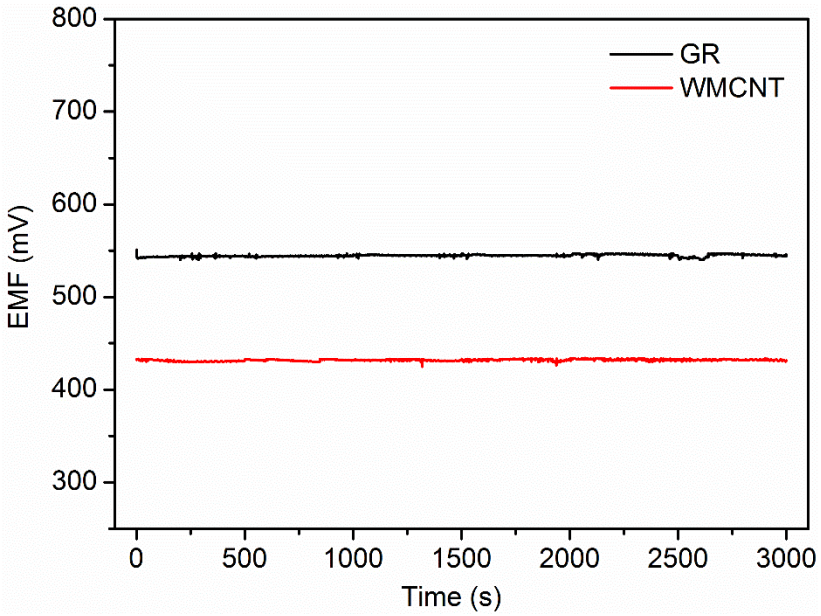

Figure S4. EMF of GC/GR/Pb^{2+}-ISE and GC/MWCNT/Pb^{2+}-ISE in 10^{-5} mol/L lead solution.