



Fig.S1 CVs of the modified GCE by PtNPs/MWCNTs/BC (red line) in the presence (solid curve) of 5 mM glucose supported by PBS solution at a potential scan rate of 10 mVs⁻¹ with different reduction reaction times of nano platinum

As shown in Fig. S1, the electrochemical activity of the PtNPs/MWCNTs/BC towards glucose oxidation weakens gradually with the reduction reaction times of nano platinum. After three reaction times, the electrochemical oxidation peaks of glucose has the significant drop. Multiple reactions cause the agglomeration of the PtNPs, which is a major reason of the electrical activity decline.