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# Layered assembly of NiMn-layered double hydroxide on graphene oxide for enhanced non-enzymatic sugars and hydrogen peroxide detection

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## Highlights

- Graphene oxide (GO) nanosheets contribute to layered assembly of NiMn-LDH and enhanced electron transfer;
- The reversal redox behavior of NiMn-LDH is account for the electrochemical detection of glucose and H<sub>2</sub>O<sub>2</sub>;
- NiMn-LDH@GO can sensitively detect glucose (839.2  $\mu\text{A mM}^{-1} \text{cm}^{-2}$ ) and H<sub>2</sub>O<sub>2</sub> (96.82  $\mu\text{A mM}^{-1} \text{cm}^{-2}$ ).
- The detection limits for glucose and H<sub>2</sub>O<sub>2</sub> are 1.2  $\mu\text{M}$  and 4.4  $\mu\text{M}$ , respectively.

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