

Highlights

- A template sacrificing strategy was employed using ZIF-67 as a precursor for hCoMo-LDH synthesis.
- The prepared hCoMo-LDH nanopolyhedra possesses hierarchical architectures with multivalent active metal ions and multichannel layered structure.
- The electrode exhibits the ultralow detection limit ($0.01\ \mu\text{M}$) and striking sensitivity ($1020\ \mu\text{A}\cdot\text{mM}^{-1}\cdot\text{cm}^{-2}$).
- The electrode demonstrates strong anti-interference property and good suitability in real water sample.