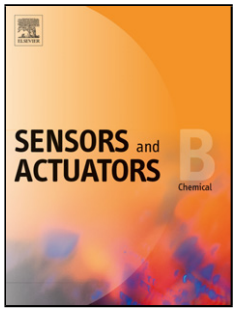

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An electrochemical biosensor for sensitive detection of microRNAs based on target-recycled non-enzymatic amplification

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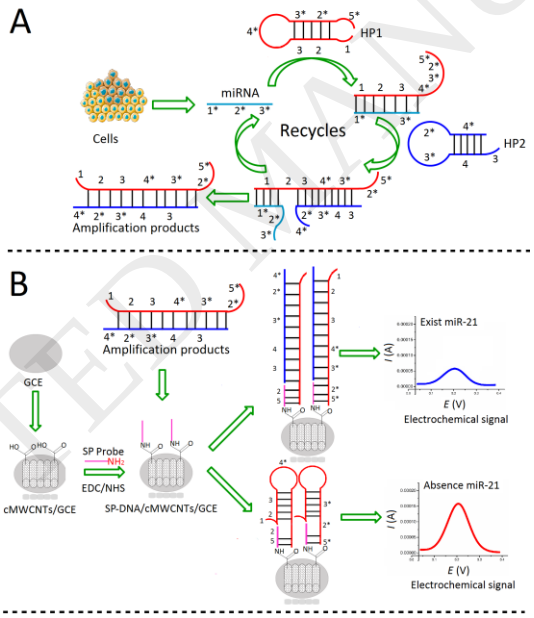
Graphical abstract



In this study, a simple, economic, and label-free electrochemical biosensor was developed for highly sensitive and selective miR-21 detection based on $Fe(CN)_6^{3-}/Fe(CN)_6^{4-}$ electrochemical signal, which relies on DNA structures conjugating with carboxyl multi-wall carbon nanotubes (MWCNTs-COOH)-modified glassy carbon electrode (GCE).