SUPPLEMENTARY INFORMATION

Employing Cluster Transfer Strategy in Hybridisation Chain Reaction-Silver Nanoclusters Hybrid Sensor for Nucleic Acid Detection

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Table S1. Comparison of our HCR-AgNCs biosensor with other reported nucleic acid biosensors.

Study	Target	Design Feature	LOD	Ref
Zhang et al., 2024	Synthetic DNA	Bifunctional blocker-aided HCR with ratiometric AgNCs	1 pM	[4]
Xia et al., 2023	- Synthetic DNA - miRNA-21	Integrates HCR with electrochemical detection.	DNA: 0.6 fM miRNA-21: 1 fM	[14]
Ooi et al., 2025	Synthetic DNA	Label-free HCR-AgNCs biosensor with universal hairpins	41 nM	[15]
Wang et al., 2025	miRNA-133a	DNA triangular prism + HCR + electrochemical signal amplification	2.21 aM	[16]
Current work	Synthetic DNA	HCR with transferable AgNCs	46 nM	

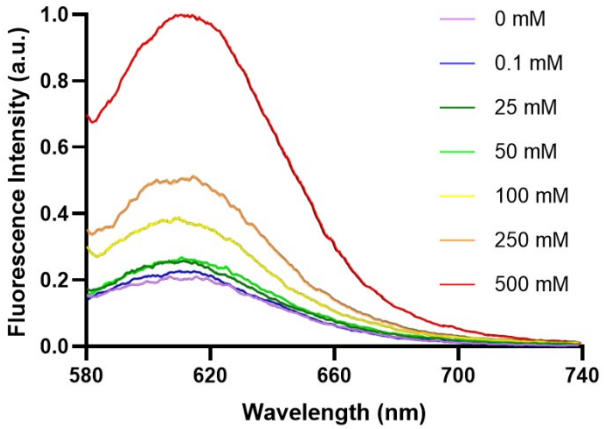

Fig. S1. Fluorescence emission spectra of the HCR–AgNCs sensor at varying DNA-141 concentrations (0–500 mM).