

Supporting Information

Urea based organic nanoparticles for selective determination of NADH

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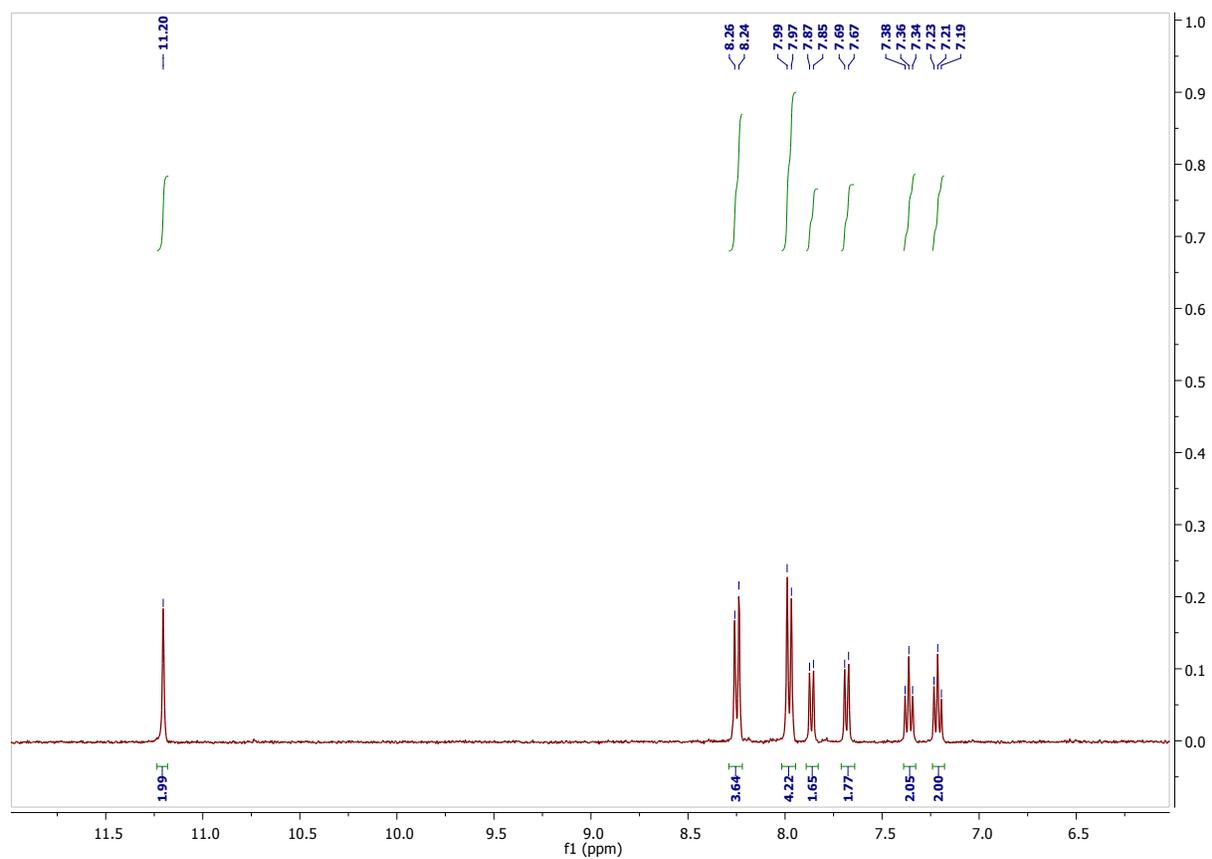


Figure S1. ¹H NMR spectrum of receptor **1**

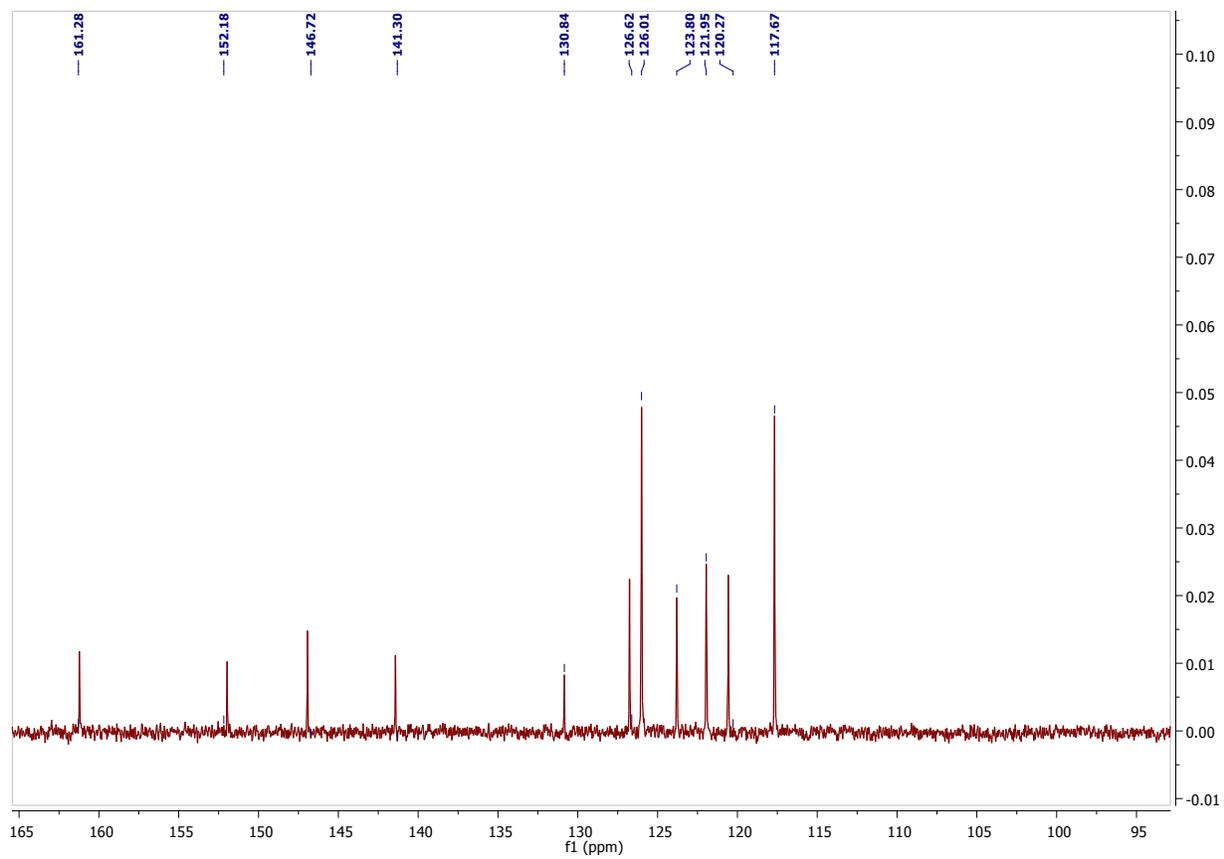


Figure S2. ^{13}C NMR spectrum of receptor **1**

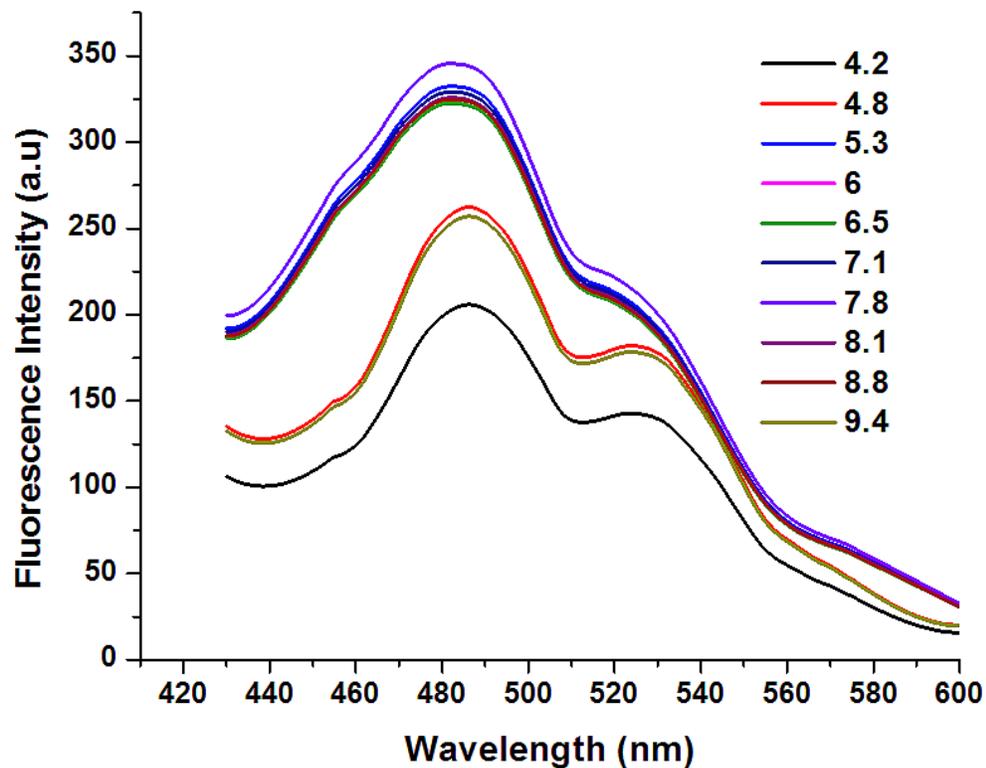


Figure S3. Effect of pH on nano-aggregates of receptor **1**

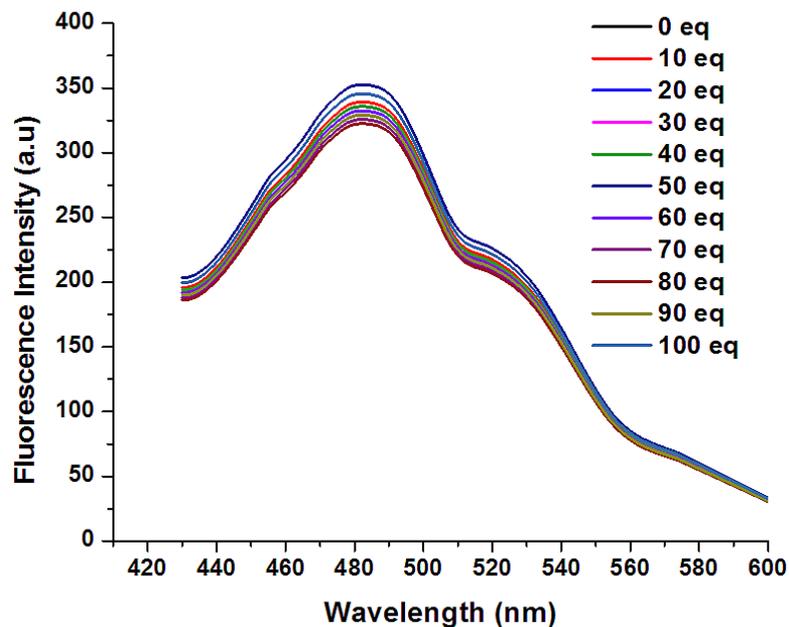


Figure S4. Effect of ionic strength on nanoaggregates of receptor **1**, upon addition of 0- 100 equiv. of TBA salt of perchlorate

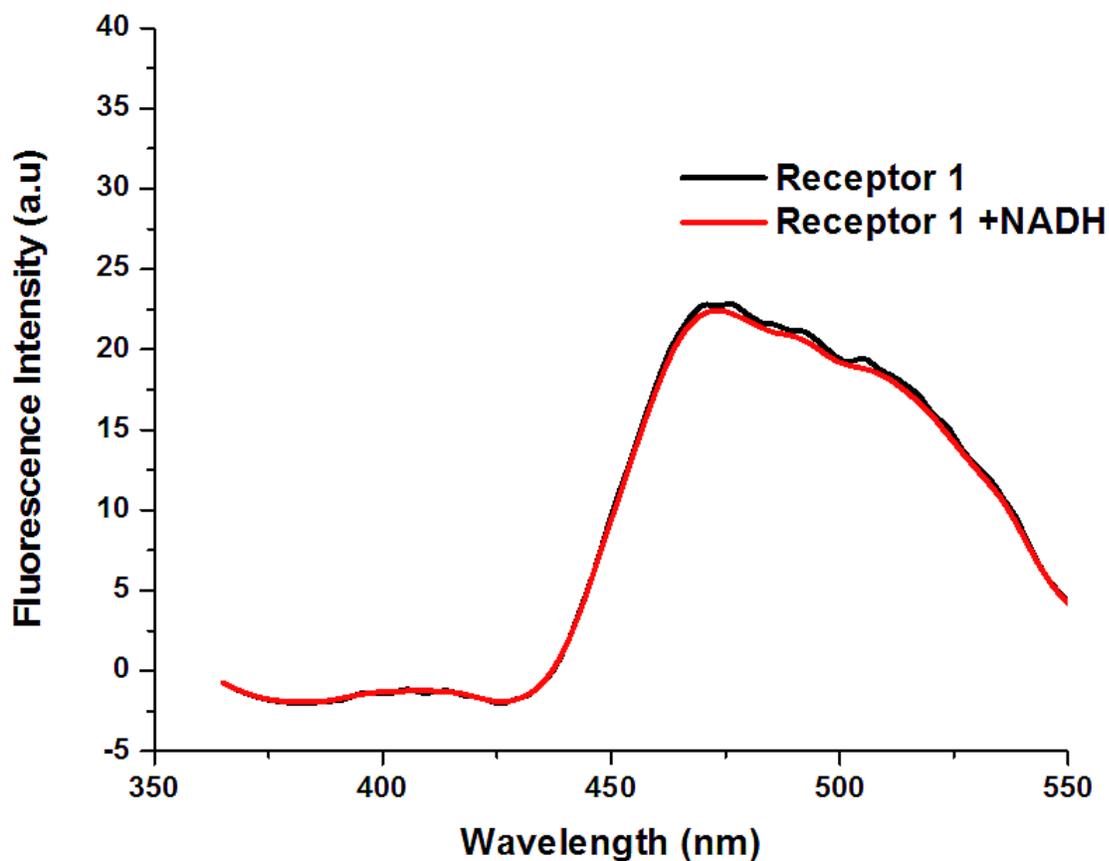


Figure S5: Binding study of Receptor **1** with NADH

Table S1: Comparison of Reported sensor with its contemporary sensors reported in literature

| S. No. | Sensor | Method | Detection range | Detection limit | Reference |
|--------|---|-----------------|-----------------------|--------------------|-----------|
| 1. | PEDOP/MWCNTs-Pd/GCE | Electrochemical | 1-13000 μM | 0.18 μM | 1 |
| 2. | Graphite/poly(methylmethacrylate) composite electrode | Electrochemical | 4-5600 μM | 3.5 μM | 2 |
| 3. | Co ₃ O ₄ nanosheet modified electrode | Electrochemical | 1-30 μM | 4.25 μM | 3 |
| 4. | PEDOT-PSS-Aunano electrode | Electrochemical | 1-80 μM | 0.1 μM | 4 |
| 5. | Nile-blue-functionalized CdSe/ZnS quantum dots | Fluorescence | - | - | 5 |
| 6. | Phenyl Phenyl boronic acid-functionalized CdSe/ZnS quantum dots | Fluorescence | - | 0.1 nM | 6 |

| | | | | | |
|----|--|---------------------|-----------------|--------------|----------------------|
| 7. | Fluorescein mercury acetate (FMA) derivative | Fluorescence | - | 0.1 μ M | 7 |
| 8. | Urea based Organic nanoparticles | Fluorescence | 0-340 nm | 96 nM | Proposed work |

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