

Supporting information:

**Modulating Molecular Level Space Proximity: A
Simple and Efficient Strategy to Design
Structured DNA Probes**

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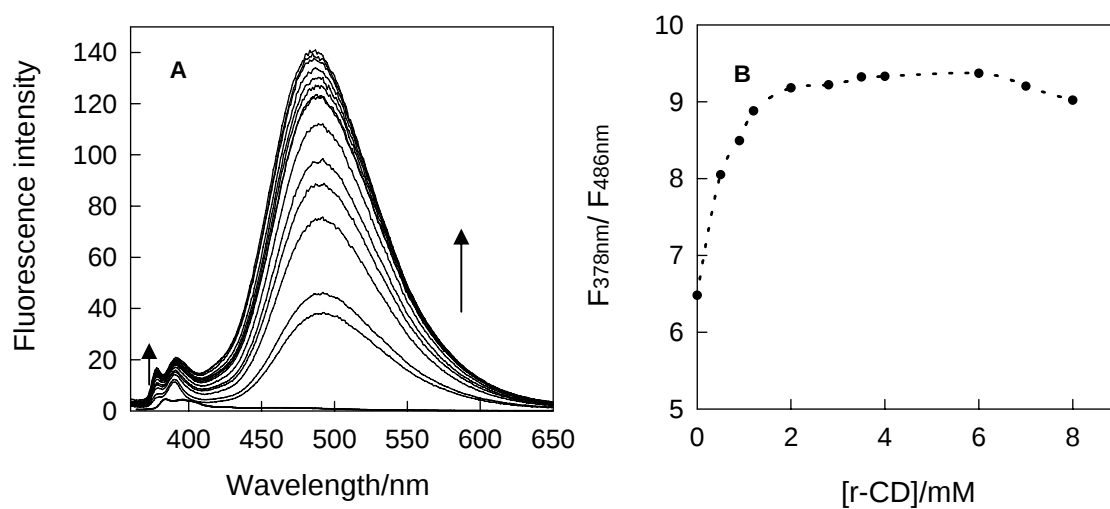


Figure S1. (A) Fluorescence emission spectra and (B) Monomer and excimer fluorescence changes of Py-MB (100 nM , $\lambda_{\text{ex}}=344$ nm) under different concentration of Cyclodextrin .Conditions: 2.5 mM MgCl_2 in 20mM Tris-HCl buffer.

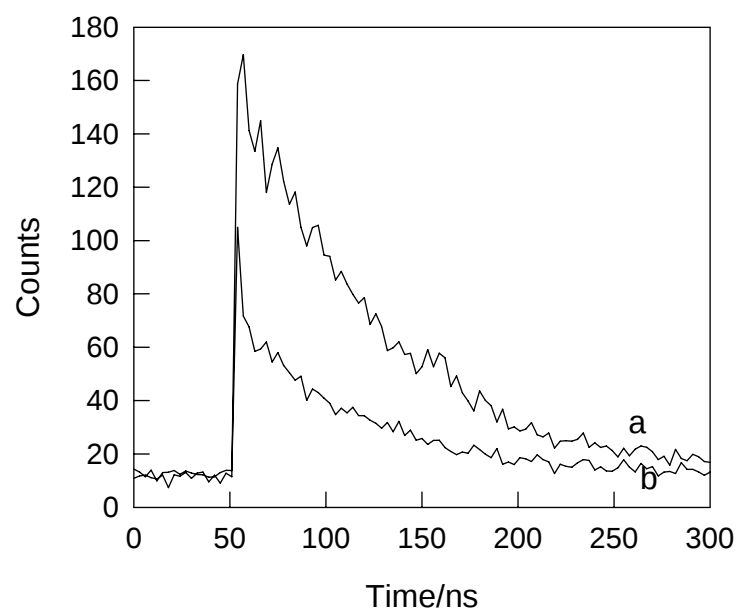


Figure S2. Fluorescence decay measurements of Py-MB/ γ -CD (a) and Py-MB (b) in Tris-HCl buffer solution.

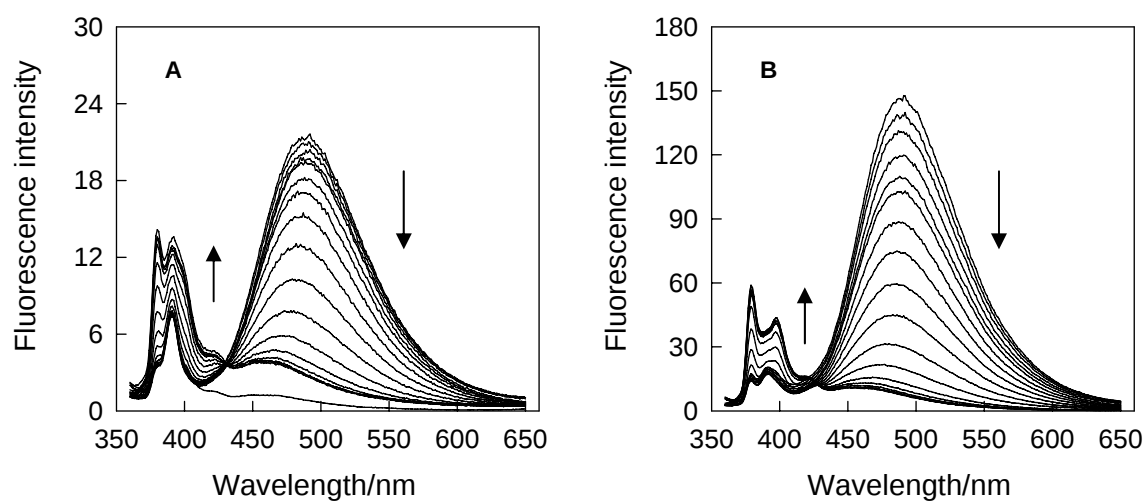


Figure S3. Fluorescence emission spectra of Py-MB (100 nM, $\lambda_{\text{ex}} = 344$ nm) as a function of temperature without (A) and with γ -CD (B). Conditions: 2.5 mM MgCl_2 in 20 mM Tris-HCl buffer.

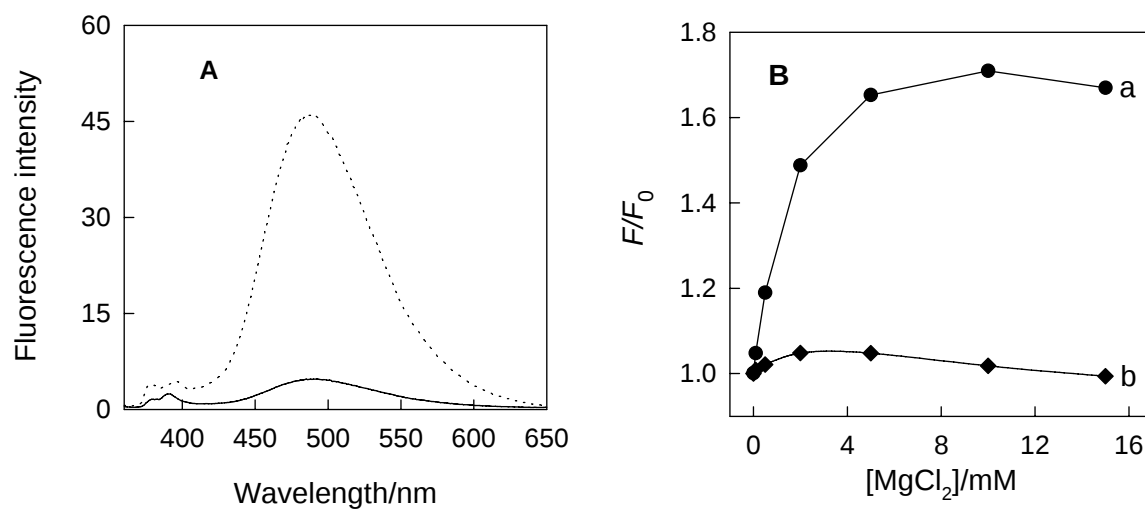


Figure S4 (A) Fluorescence emission spectra of Py-MB in the Tris/HCl buffer solution (no Mg^{2+}) in the absence (—) and the presence of 8 mM γ -CD (.....). (B) Effects of Mg^{2+} concentration on the excimer fluorescence intensity for Py-MB (a) and Py-MB/ γ -CD (b) in 20mM Tris-HCl buffer solution. F_0 and F are the excimer fluorescence intensity of Py-MB in the absence and the presence of $MgCl_2$.

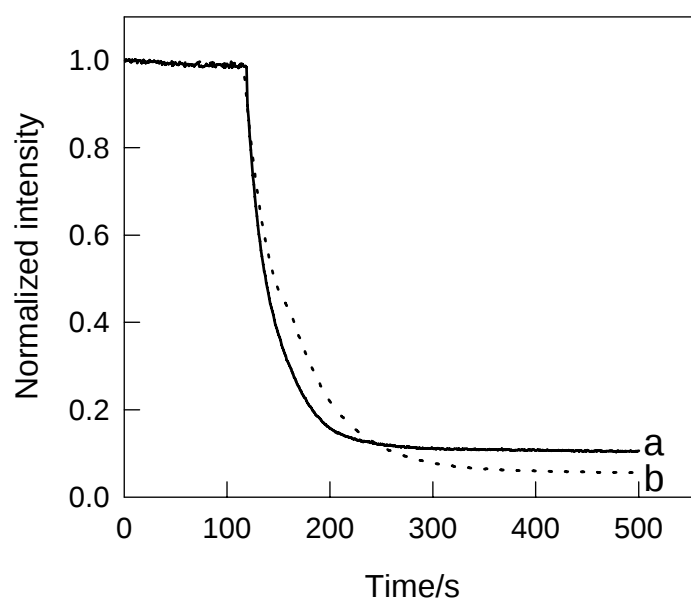


Figure S5. Real-time fluorescence records of Py-MB (100 nM) at 486 nm upon additions of target T₁ (50 nM) without (a) and with γ -CD (b) Conditions: 2.5 mM MgCl₂ in 20mM Tris-HCl buffer.

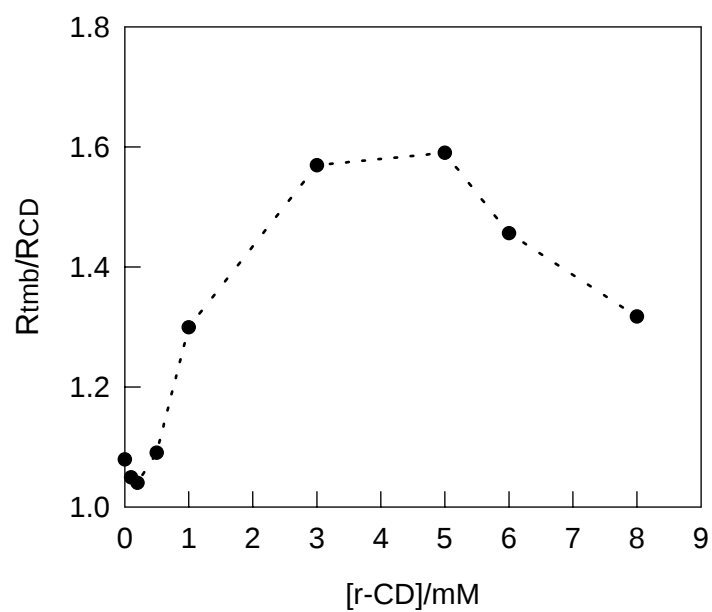


Figure S6. Monomer and excimer fluorescence intensity changes of Py-AP as a function of different concentration of γ -CD with 0.1 μ M Tmb. $R_{CD}=(F_{378nm}/F_{486nm})_{CD}$, $R_{Tmb}=(F_{378nm}/F_{486nm})_{Tmb}$