

Supporting Information

Two-channel Dansyl/Tryptophan Emitters with a Cholic Acid Bridge as Reporters for Local Hydrophobicity within Supramolecular Systems Based on Bile Salts

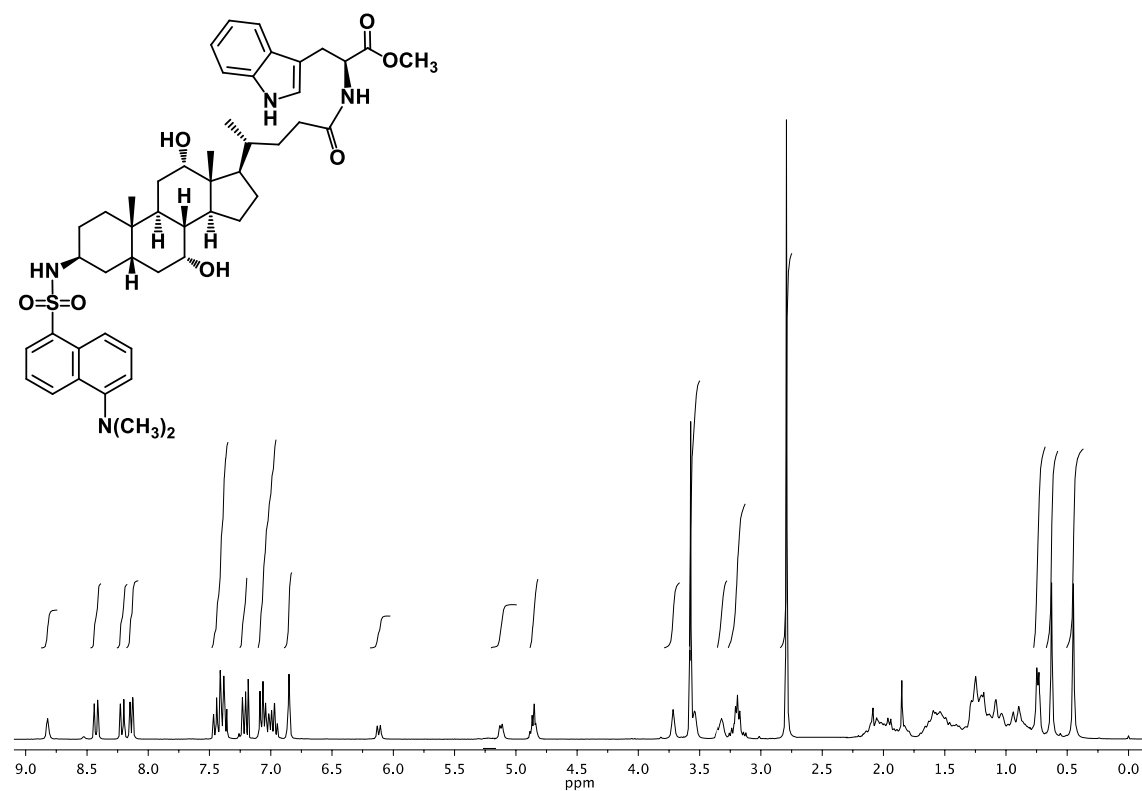
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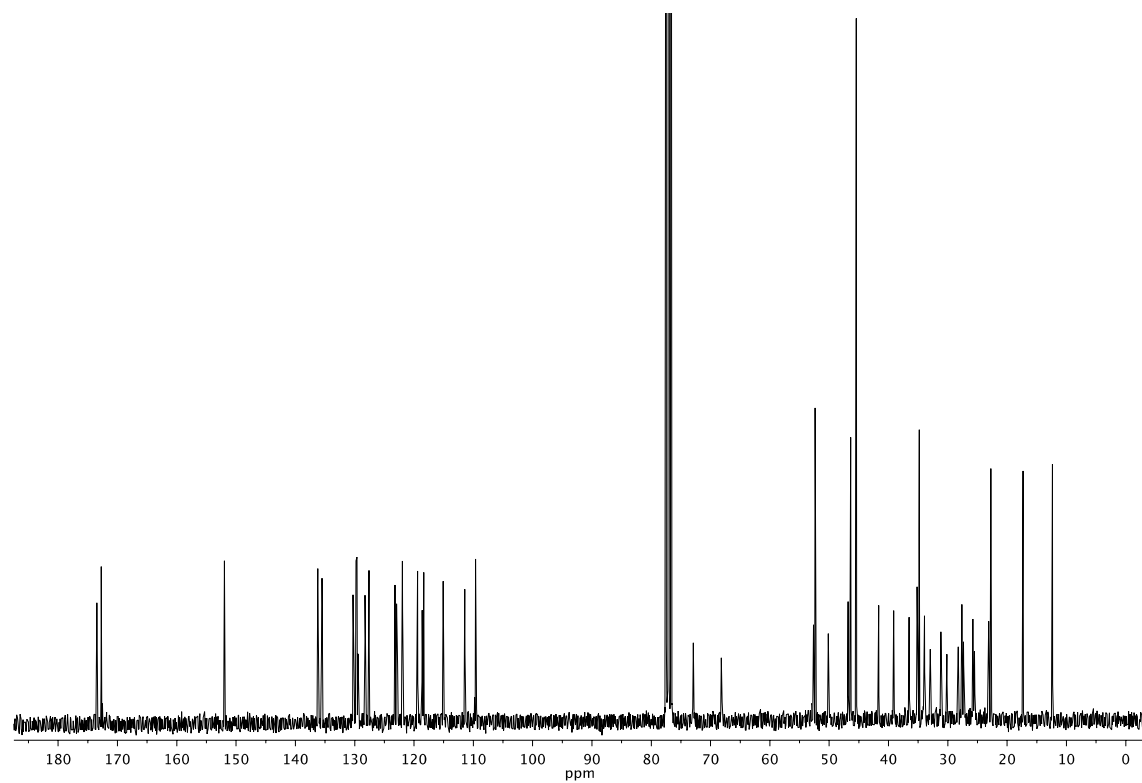
I. ^1H NMR of 3β -Dns-CA-TrpMe

(CDCl_3 , 300 MHz)



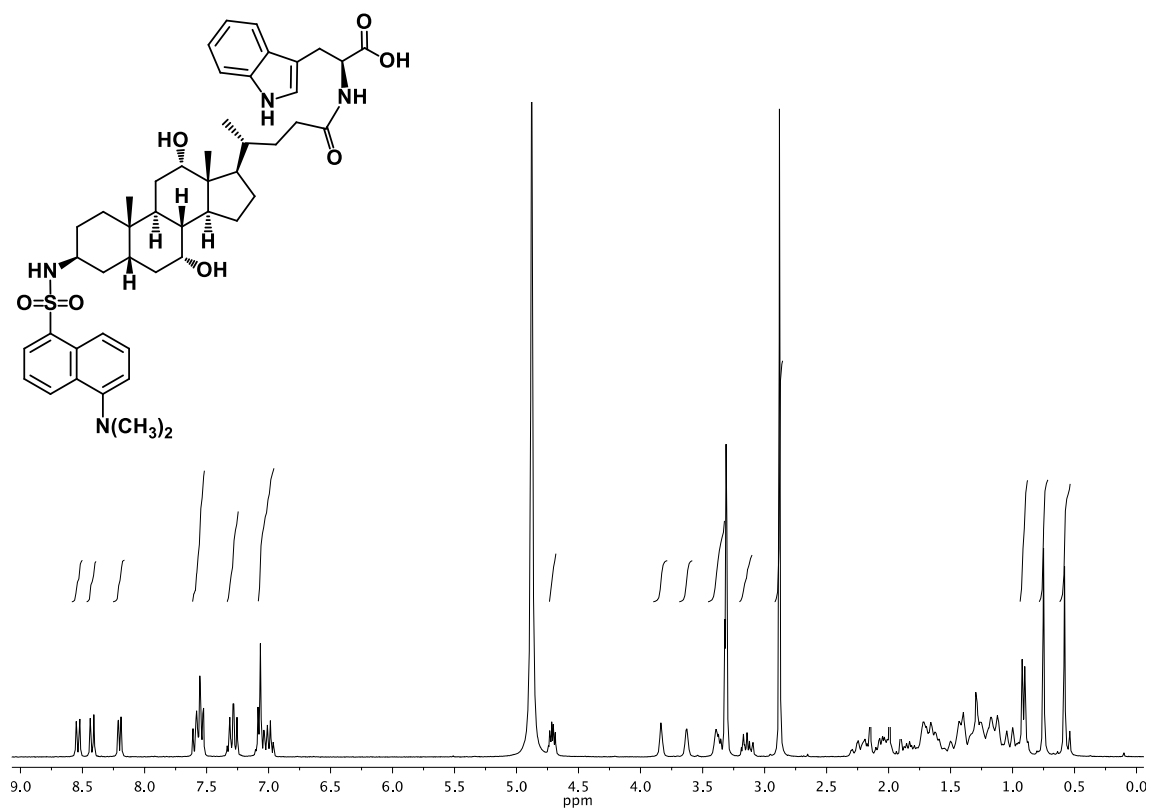
^{13}C NMR of 3β -Dns-CA-TrpMe

(CDCl_3 , 75 MHz)



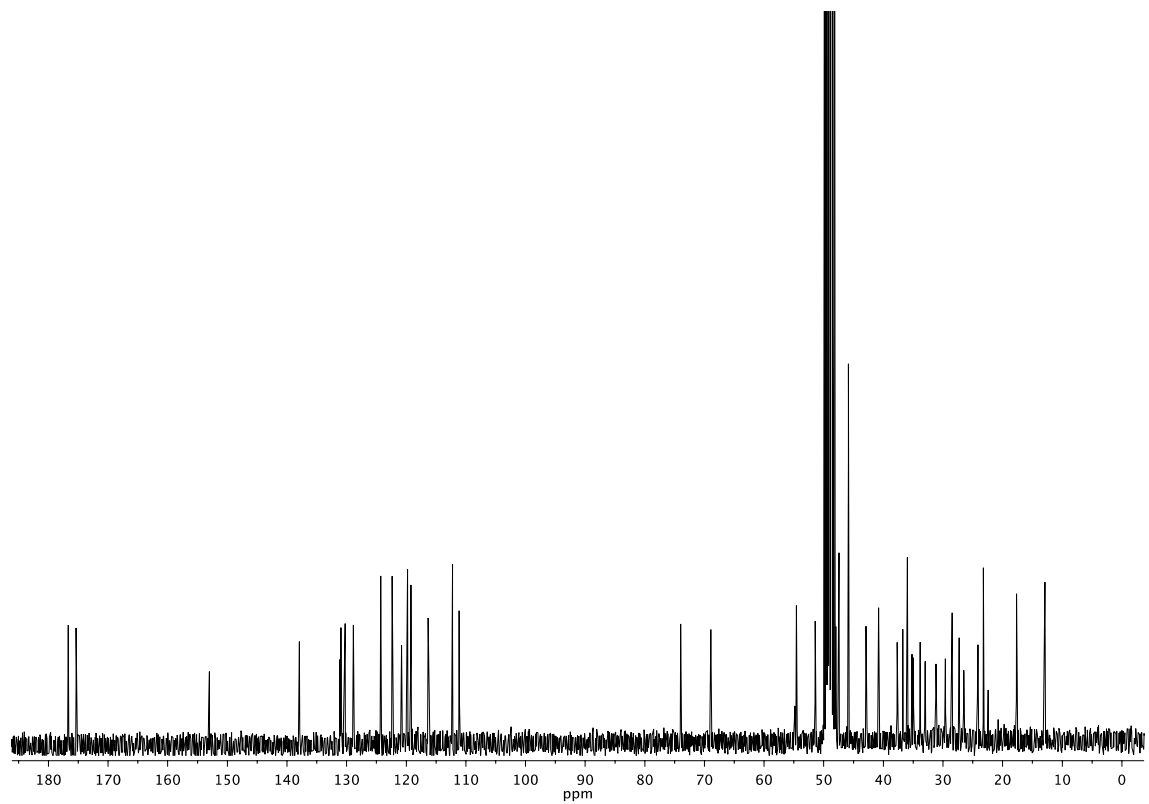
II. ^1H NMR of 3 β -Dns-CA-Trp

(CD_3OD , 300 MHz)



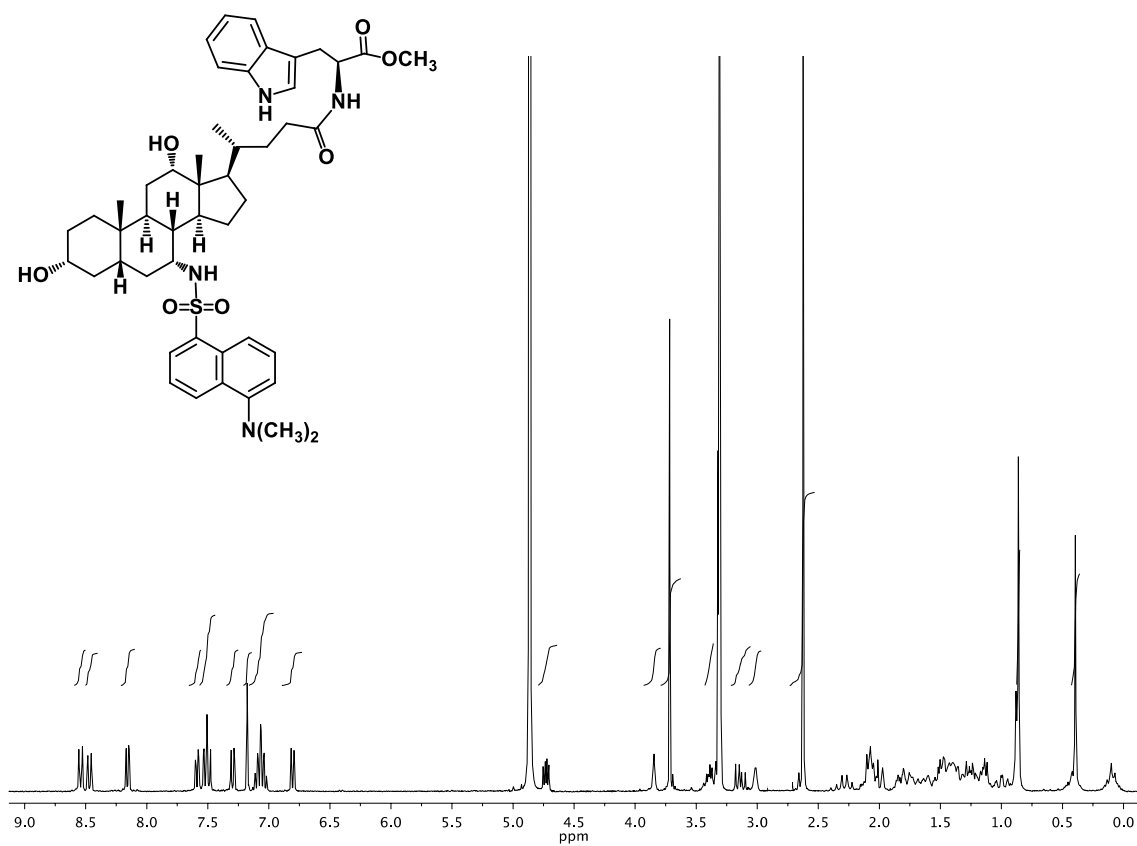
^{13}C NMR of 3 β -Dns-CA-Trp

(CD_3OD , 75 MHz)



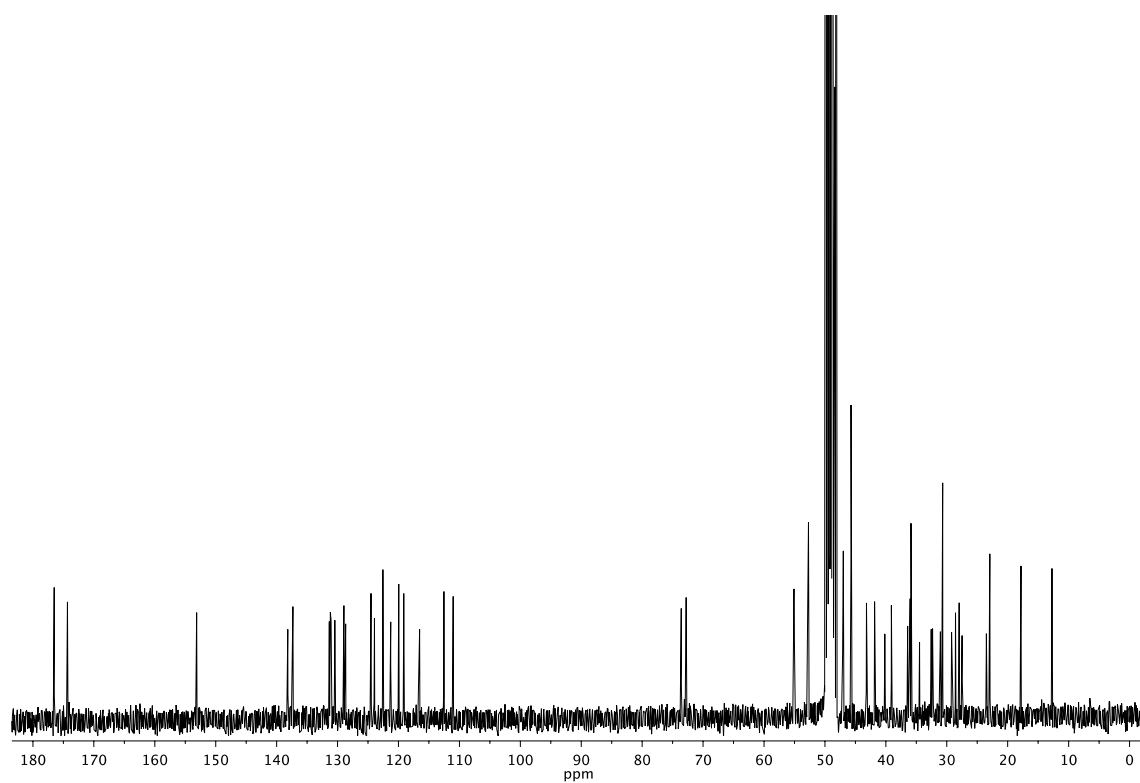
III. ^1H NMR of 7α -Dns-CA-TrpMe

(CDCl_3 , 300 MHz)

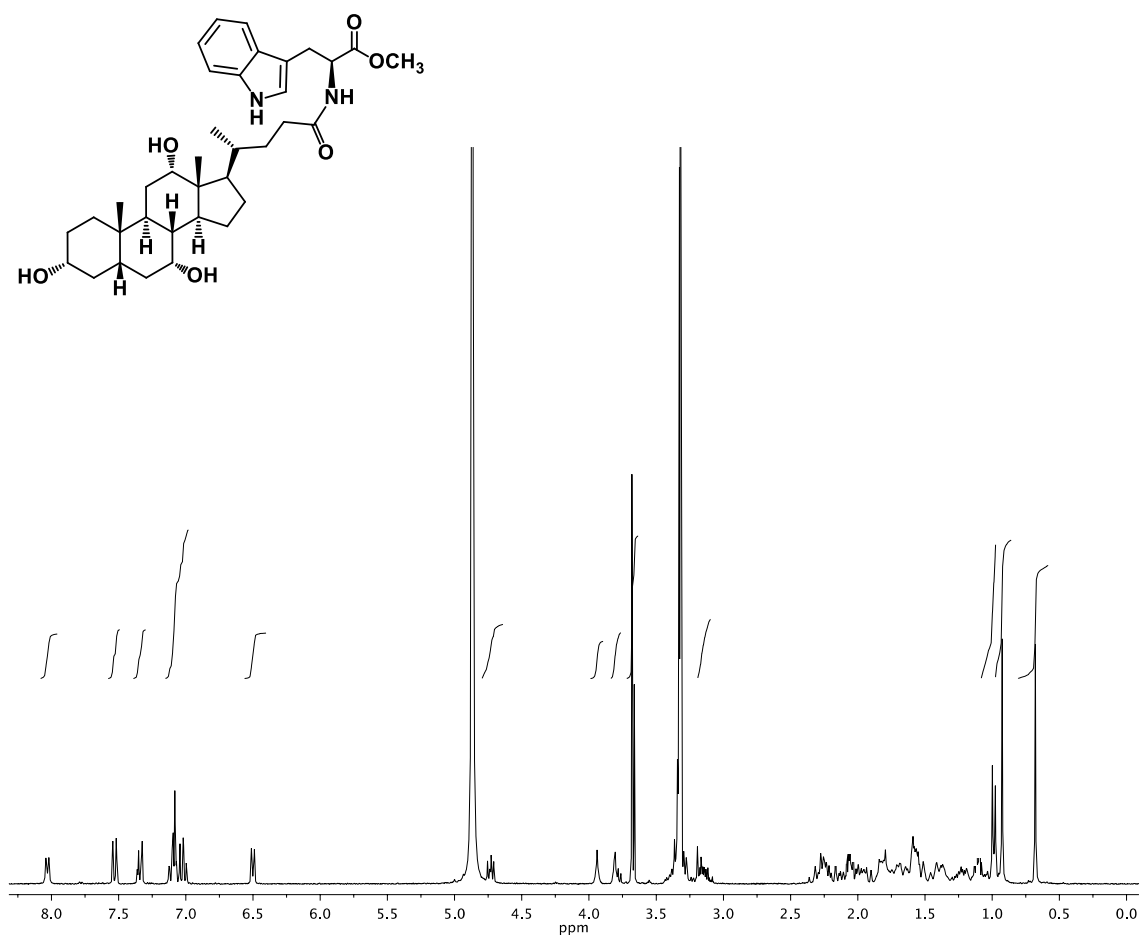


^{13}C NMR of 7α -Dns-CA-TrpMe

(CDCl_3 , 75 MHz)

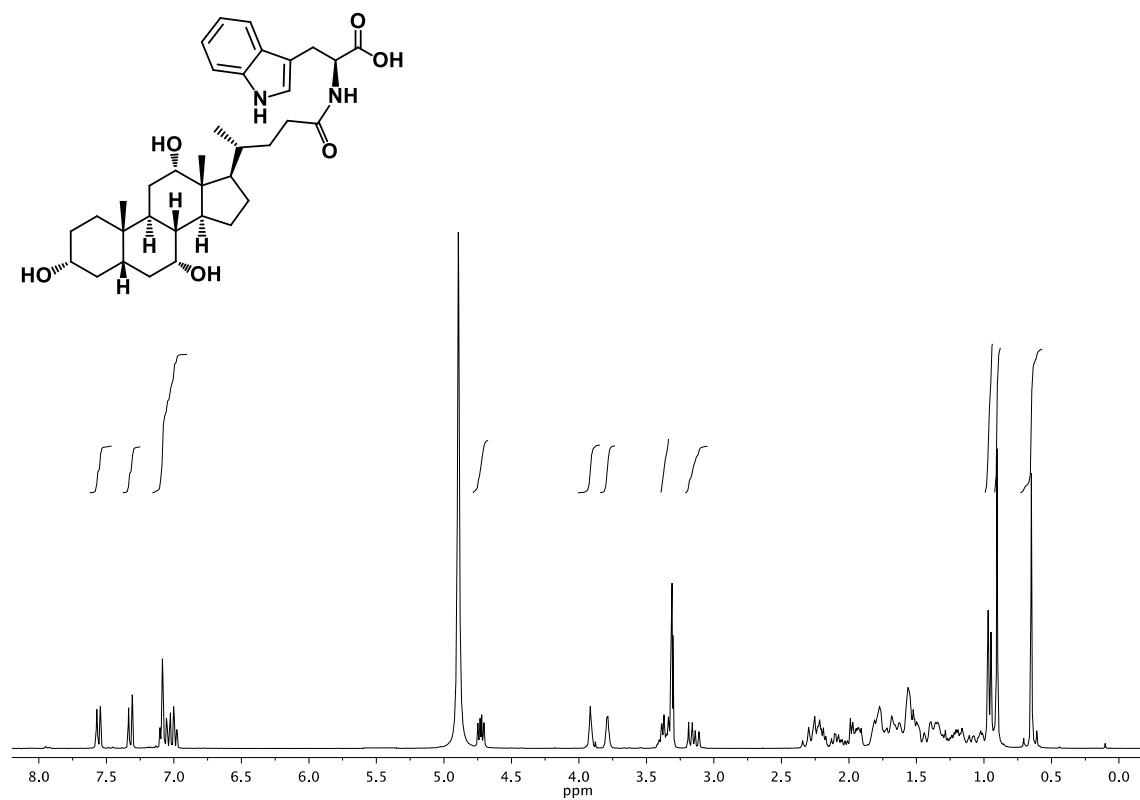


IV. ^1H NMR of CA-TrpMe
(CD_3OD , 300 MHz)



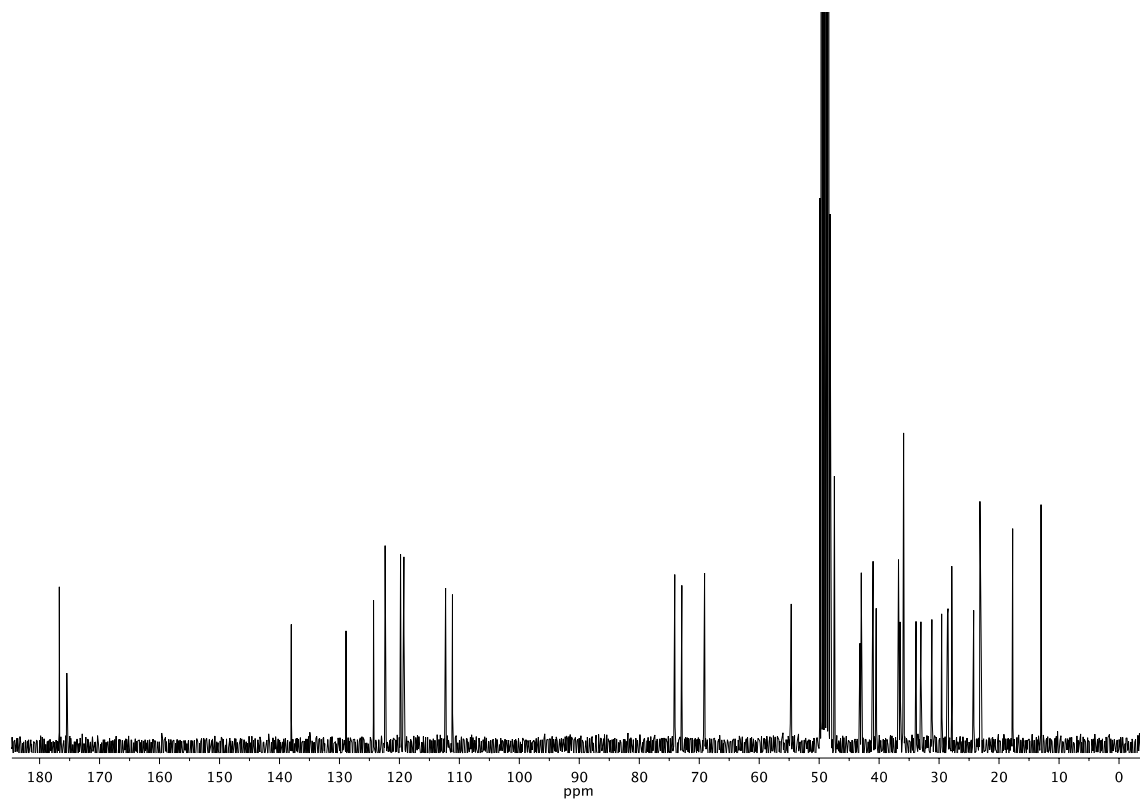
V. ^1H NMR of CA-Trp

(CD_3OD , 300 MHz)



^{13}C NMR of CA-Trp

(CD_3OD , 75 MHz)



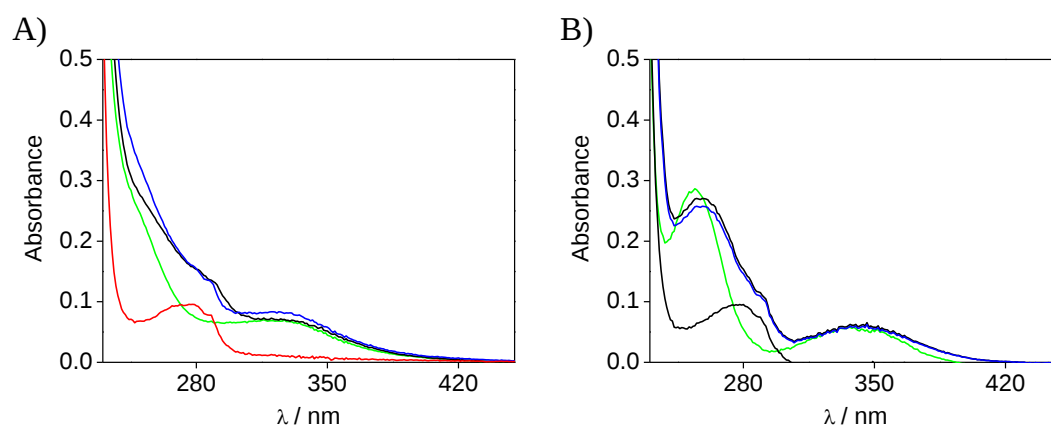


Figure S1. Absorption spectra of 3β -Dns-CA-Trp (black), 7α -Dns-CA-TrpMe (blue), 3β -Dns-CA (green) and CA-Trp (red) in solution (A) and in presence of NaCA 300 mM (B).

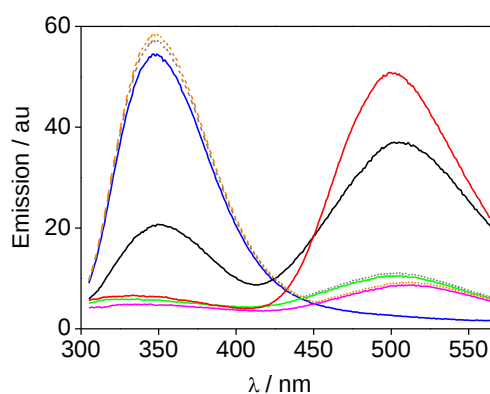


Figure S2. Emission spectra in 300 mM NaCA ($\lambda_{\text{exc}} = 290$ nm) of: 3β -Dns-CA-Trp (black), 7α -Dns-CA-TrpMe (red), CA-Trp (blue), 3β -Dns-CA (green) and 7α -Dns-CA (magenta) and 1:1 mixtures 3β -Dns-CA:CA-Trp (gray) and 7α -Dns-CA:CA-Trp (orange).

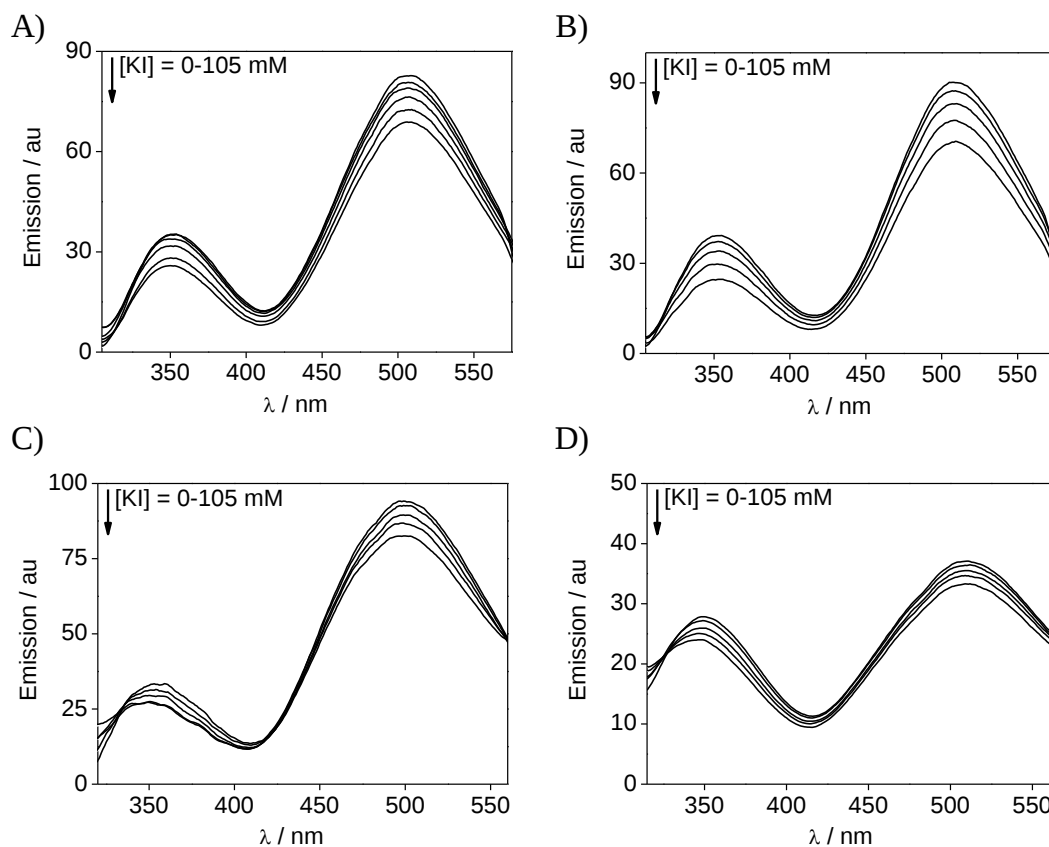


Figure S3. Changes in the emission spectra ($\lambda_{\text{exc}} = 290 \text{ nm}$) of **3 β -Dns-CA-Trp** upon addition of increasing concentrations of KI in: NaCA 300 mM (A), NaTCA 300 mM (B); NaDCA 75 mM (C) and MM (D).

Table S1. Fluorescence lifetimes of Trp and Dns chromophores for **3 β -Dns-CA-Trp** in different media.

τ_s (ns)		
Supramolecular system	3 β -Dns-CA-Trp	
	λ_{obs} 352 nm	λ_{obs} 550 nm
Solution NaCl 0.2 M	6.15	5.10
NaTCA (300 mM)	12.00	16.10
NaCA (300 mM)	8.50	14.00
NaDCA (75 mM)	11.50	13.50
MM	11.40	10.50

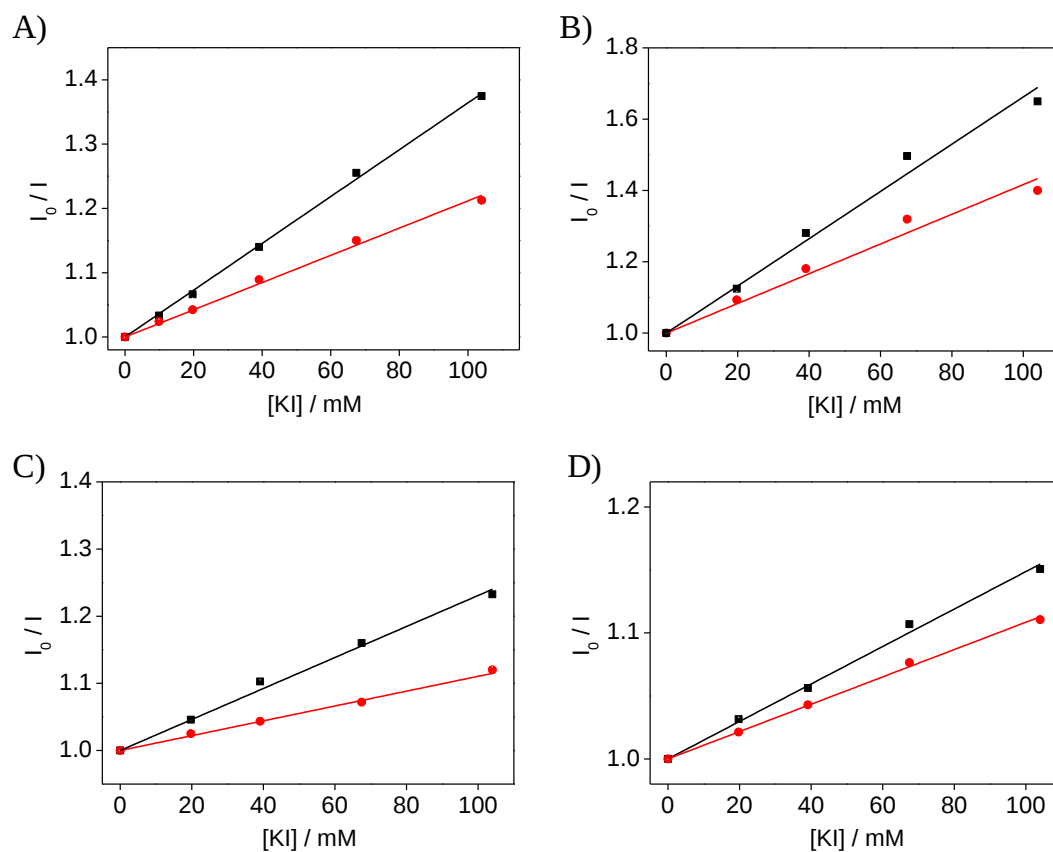


Figure S4. Corresponding Stern-Volmer plots for 3β-Dns-CA-Trp ($\lambda_{\text{obs}} = 350 \text{ nm}$, ■) and ($\lambda_{\text{obs}} = 500 \text{ nm}$, ●) vs KI in: NaTCA, 300 mM (A), NaCA, 300 mM (B), NaDCA, 75 mM (C) and MM (D).