

Supplementary informations

Breaking azacalix[4]arenes into indoline derivatives

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1. NMR spectra

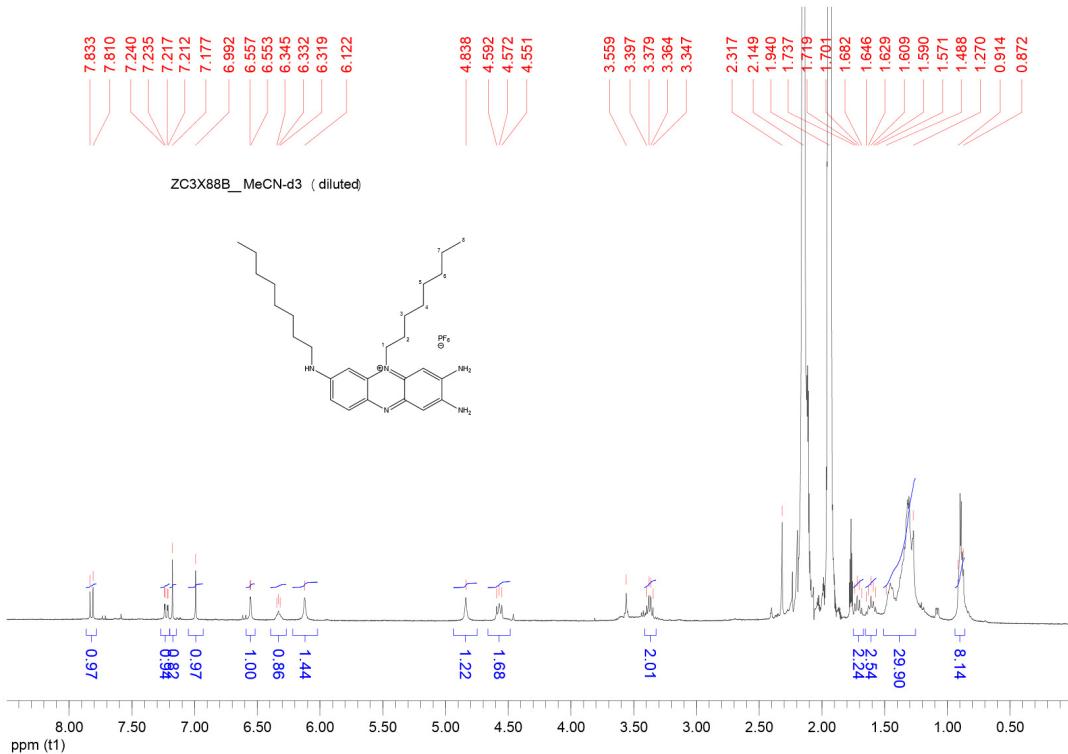


Figure S1. ^1H NMR spectrum of **8** in CD_3CN

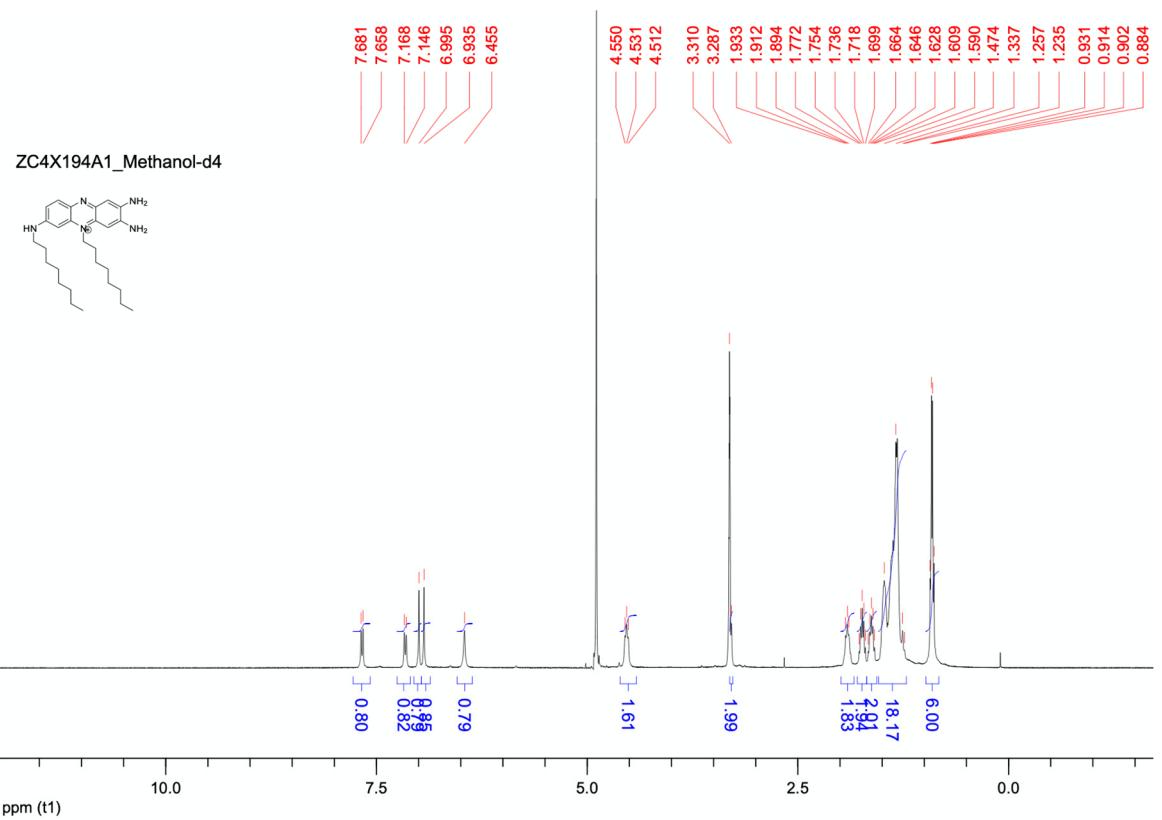


Figure S2. ^1H NMR spectrum of **8** in MeOD

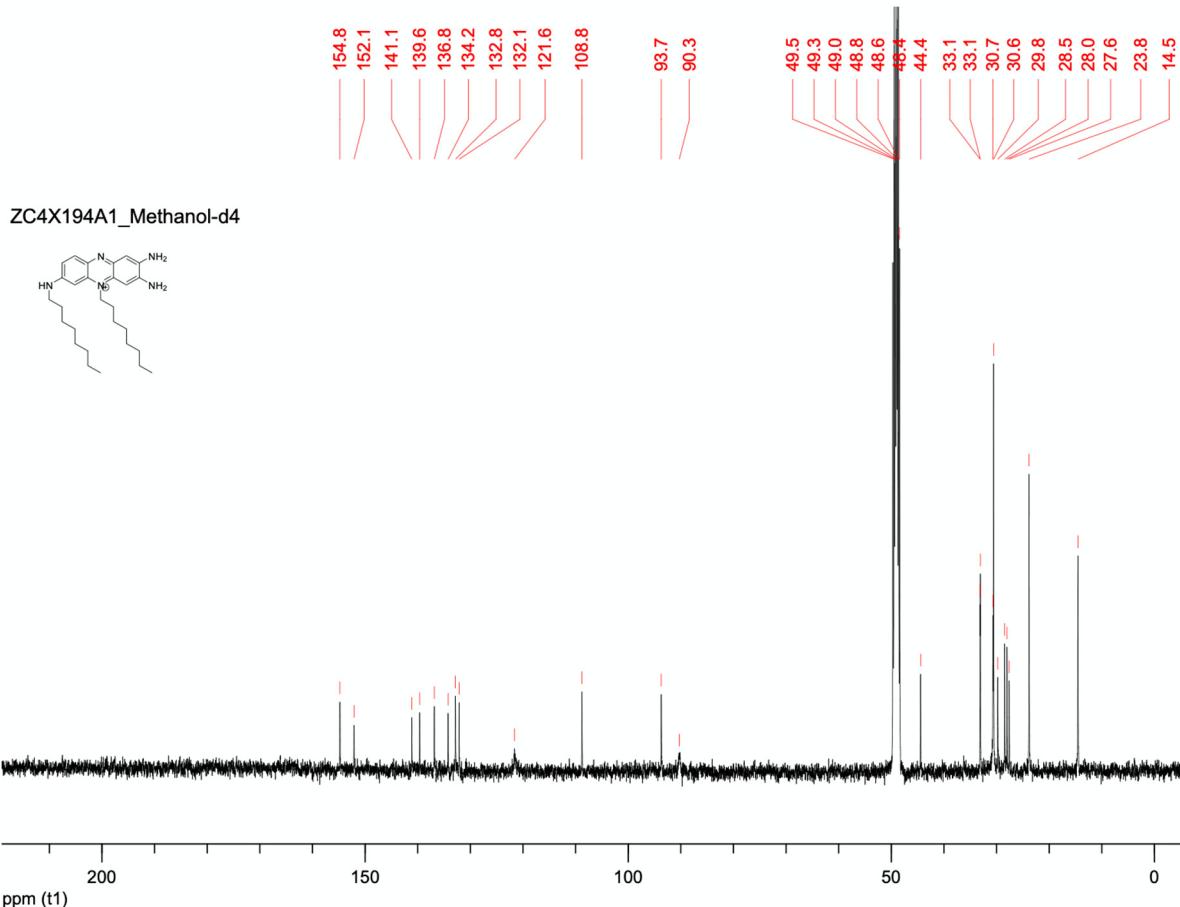


Figure S3. ^{13}C NMR spectrum of **8** in MeOD

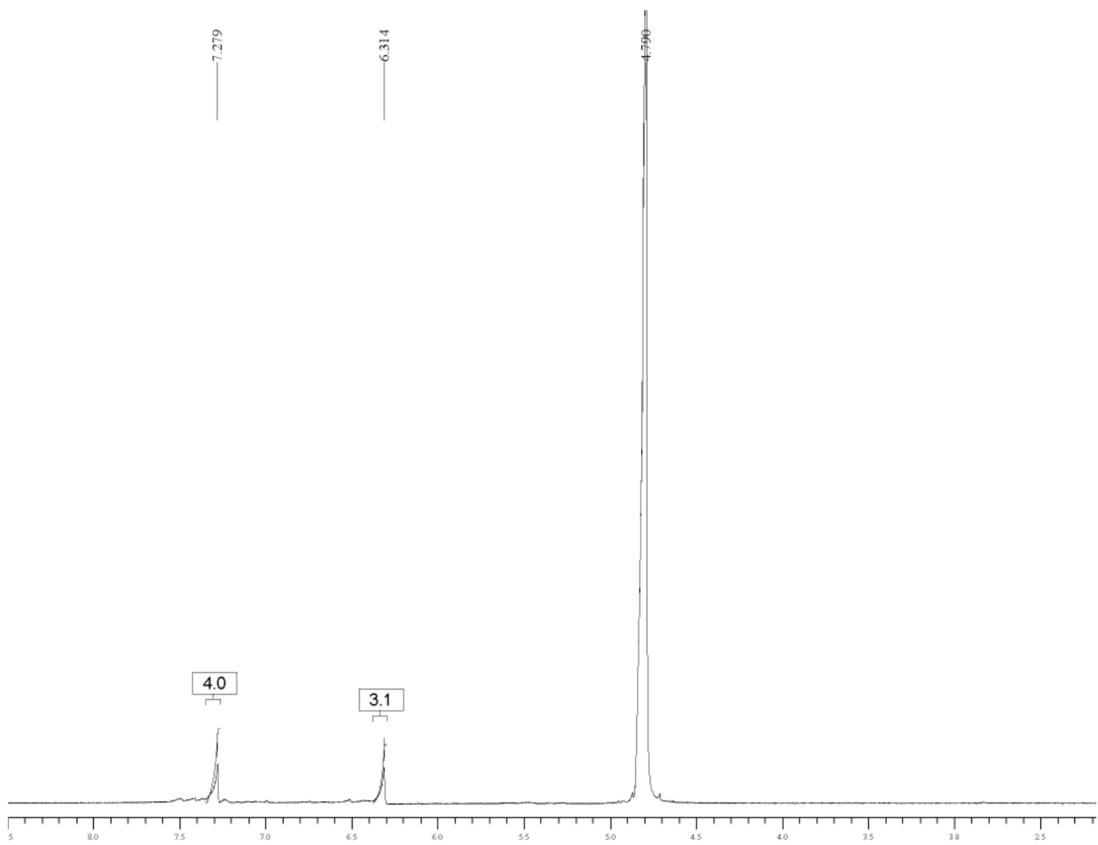


Figure S4. ¹H spectrum of **12·nHCl** in D₂O

13C cpmas sr10 sample:ZC2X91
(*) Spinning Side Bands

A vertical scale for ¹³C NMR chemical shifts, ranging from 142.3 at the top to 110.6 at the bottom. Major ticks are labeled at 142.3, 141.5, 136.7, 126.4, 123.1, 119.5, 115.7, and 110.6. Minor ticks are present between these major labels.

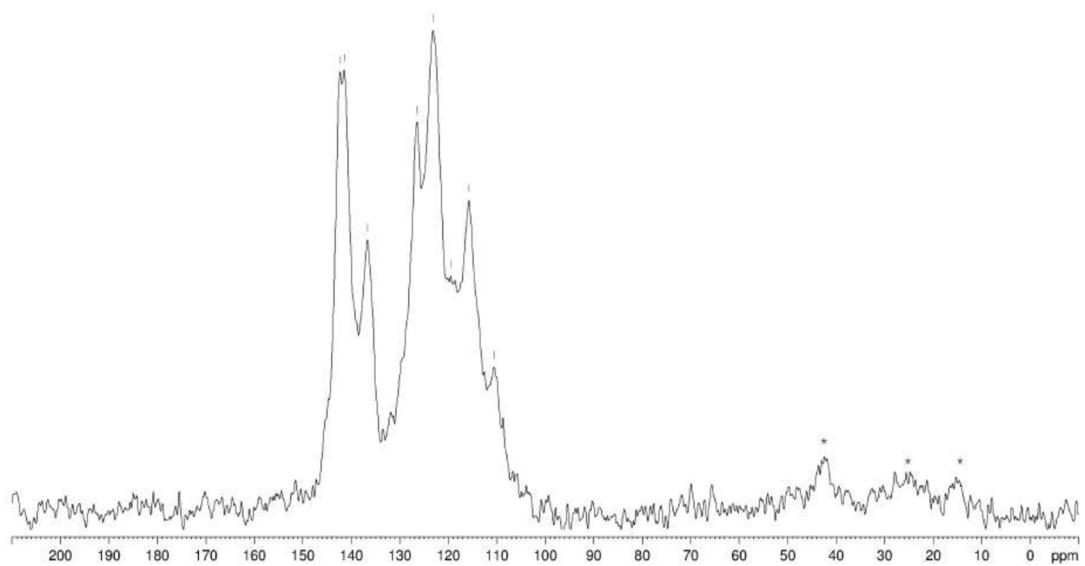


Figure S5. solid state ¹³C NMR spectrum of **12·nHCl**

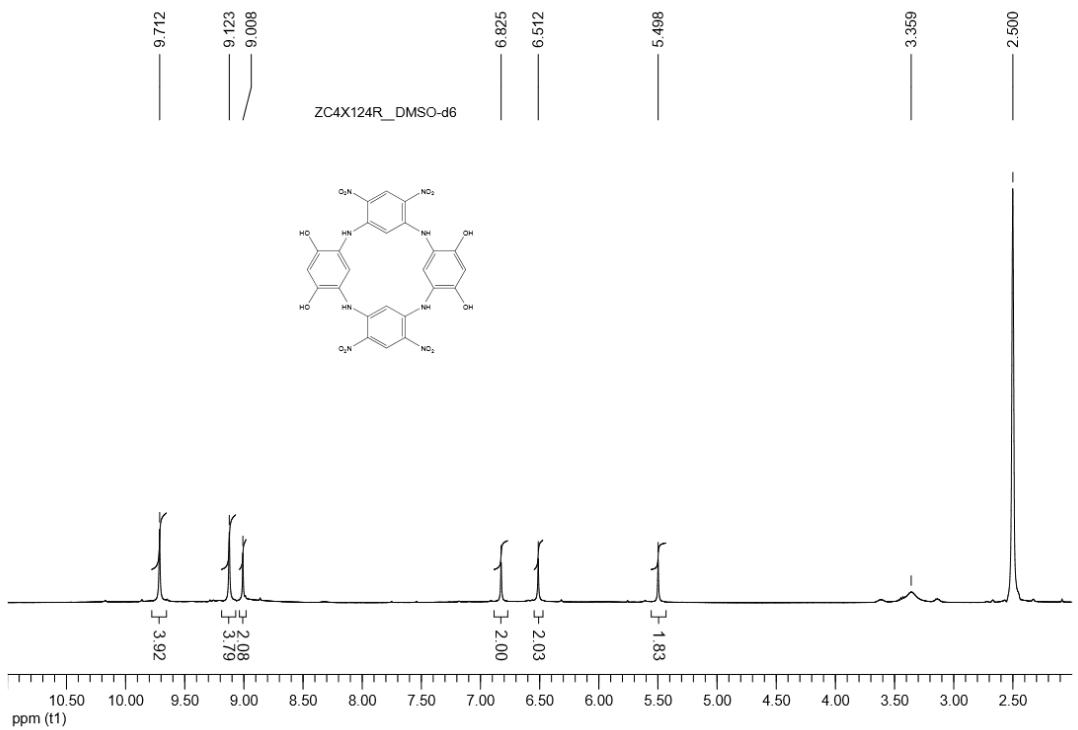


Figure S6. ^1H NMR spectrum of **15** in DMSO

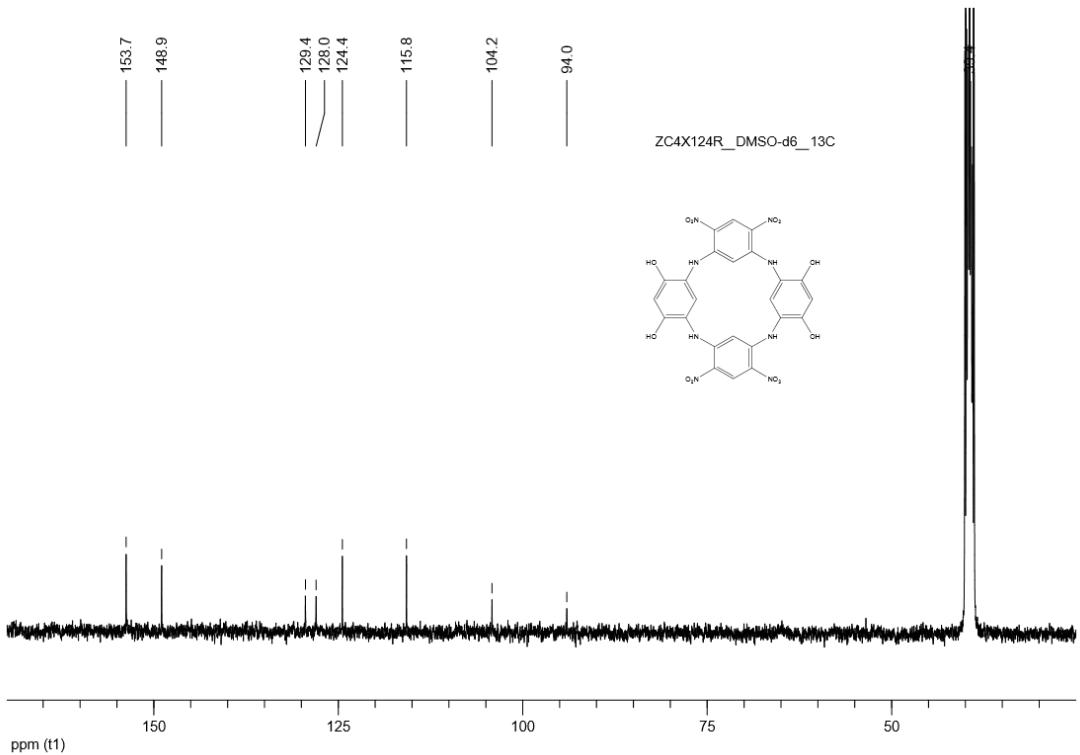


Figure S7. ^{13}C NMR spectrum of **15** in DMSO

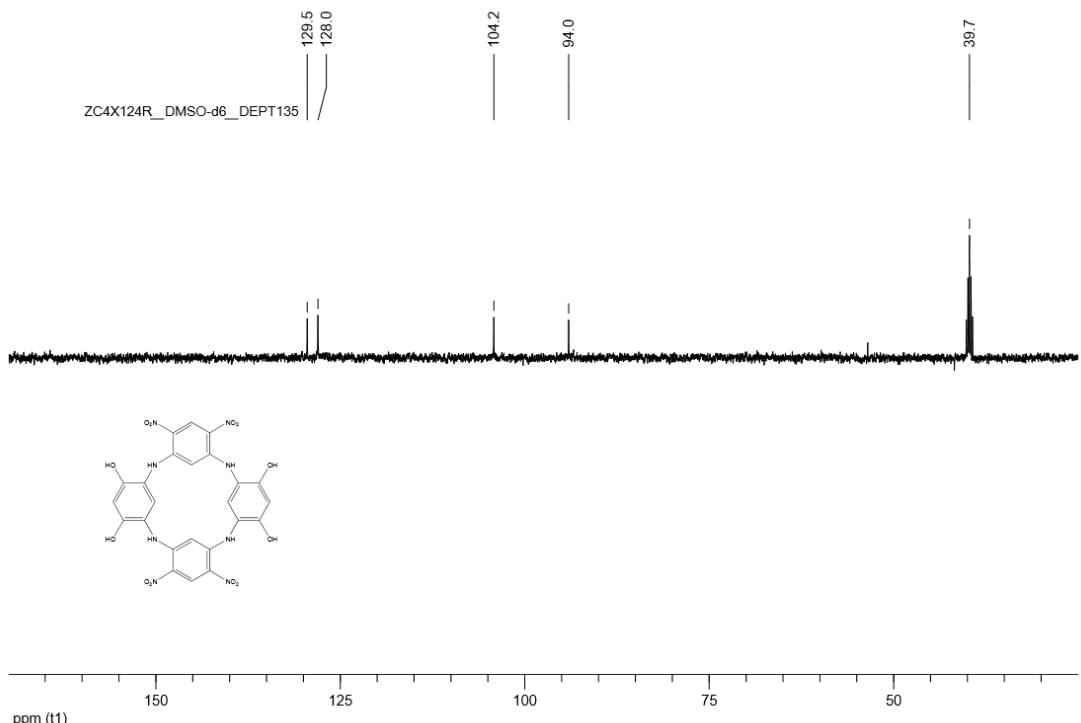


Figure S8. ^{13}C NMR spectrum of **15** (DEPT) in DMSO

2. X-ray Structure of molecule **15**

Alert level B in checkcif:

Alert level B
 Crystal system given = triclinic
`PLAT430 ALERT 2 B` Short Inter D...A Contact S1B
 O10 .. 2.82 Ang.

Comment on this alert:

If we look at the structure by extending the molecule a little towards its neighbors, we see that the NO₂ bearing the oxygen O(10) is the only one of the 4 out of the plane.

What's more, the DMSO involved in the interaction defined as short by the check-cif is disordered on 2 sites, with the S(1B) sulfur on one of the two sites interacting with O(10) on this NO₂. The two observations combined show quite clearly that there is a particular interaction at this level.

Hence the short distance observed by the check-cif.

3. SEM analysis

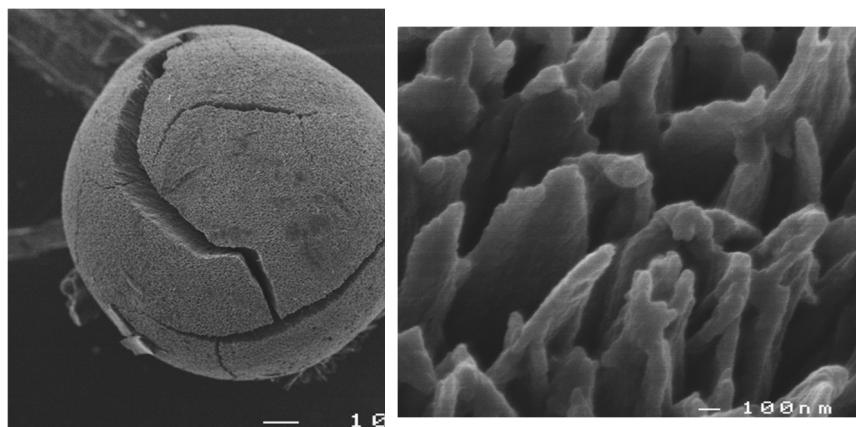


Figure S9. SEM images of **12•nHCl**-aggregates.