

Electronic Supplementary Information

Inclusion Complex of Cucurbit[7]uril with Benzimidazolyl Benzyl Viologen Showing Fluorescence and Photochromic Properties

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Fig. S1. ^1H NMR of guest molecule $1 \cdot \text{Cl}_3$ in D_2O .

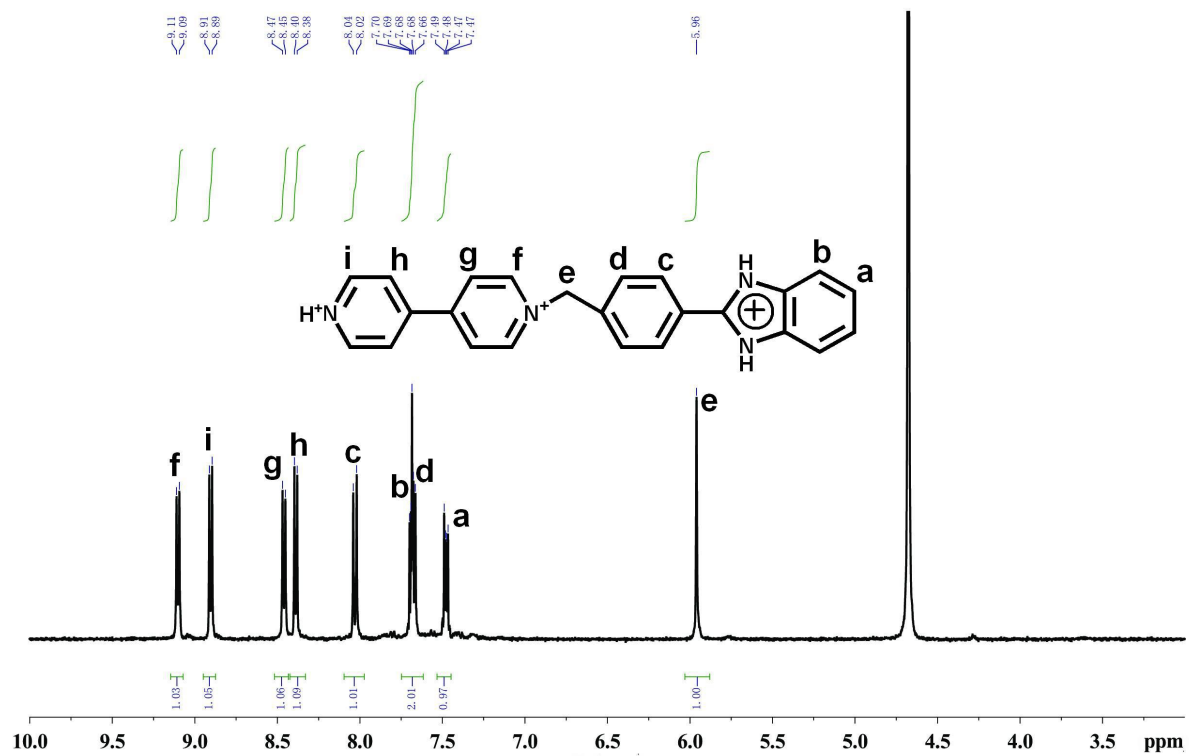


Fig. S2. ^{13}C NMR of guest molecule $\mathbf{1}\cdot\text{Cl}_3$ in D_2O .

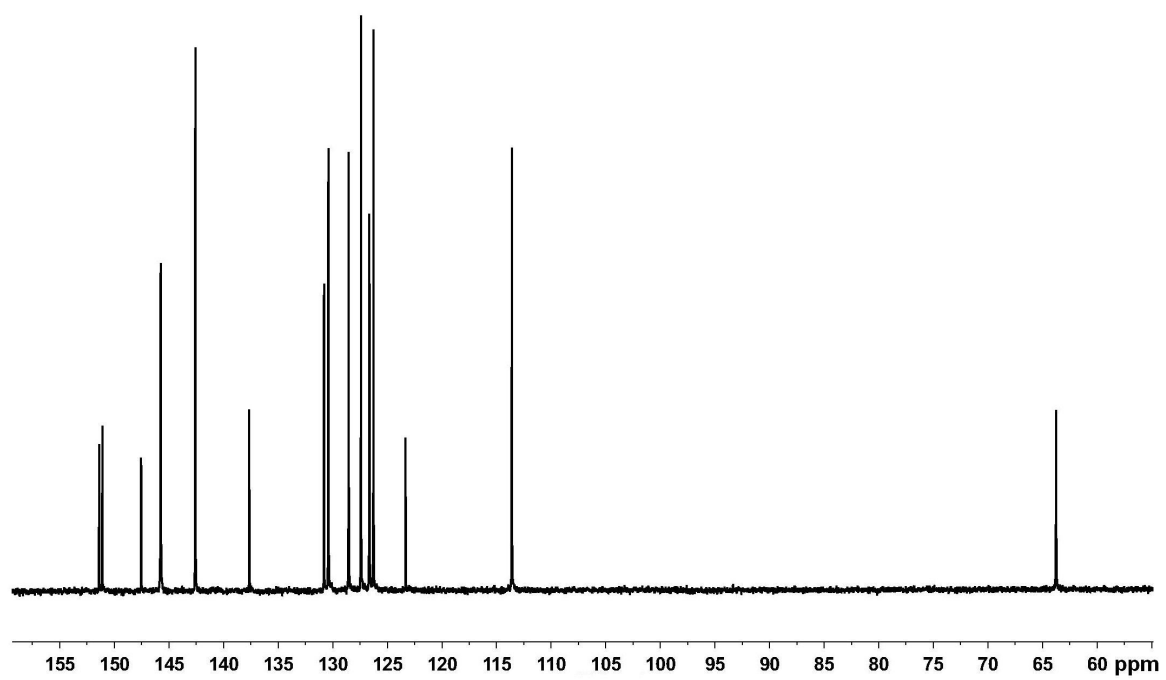


Fig. S3. HRMS of guest molecule (1-2H)⁺.

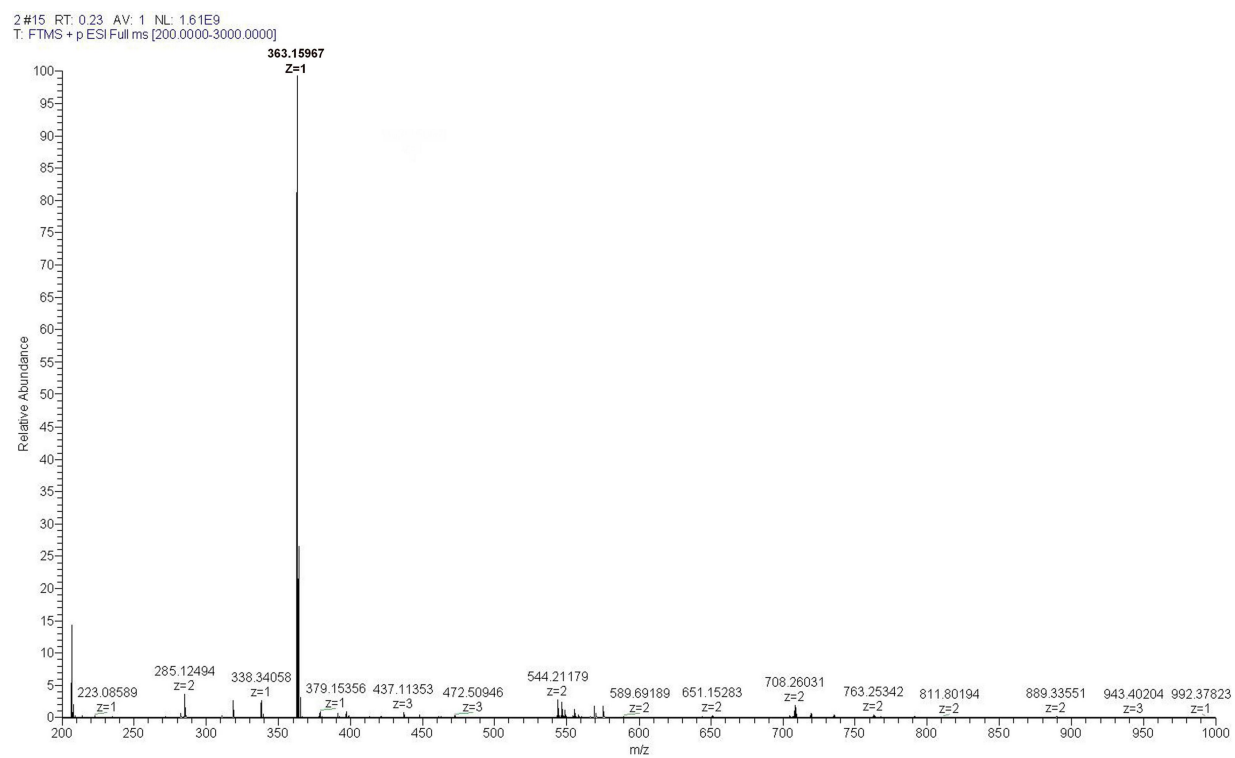


Fig. S4. 2D gCOSY spectrum of the inclusion complex $1^{3+}@Q[7]$ in D_2O .

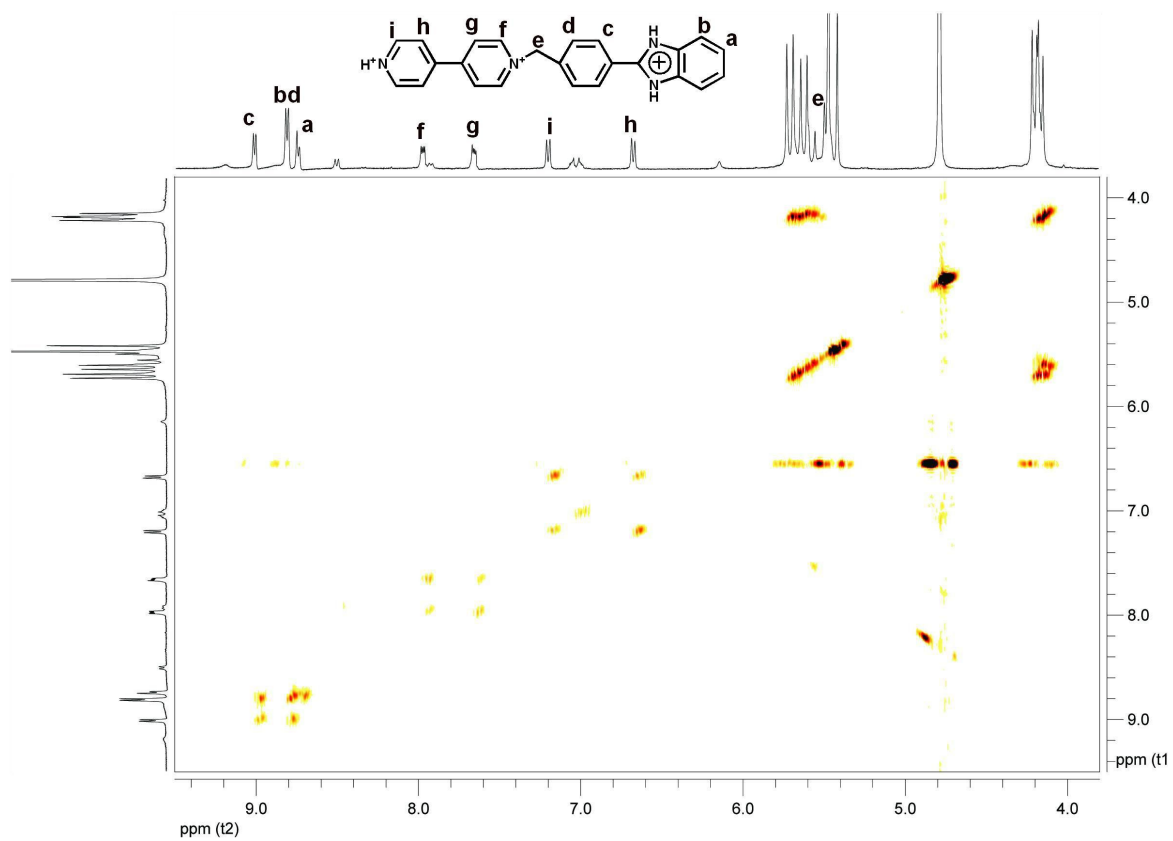


Fig. S5. 2D gCOSY spectrum of the inclusion complex $1^{3+}@Q[7]_2$ in D_2O .

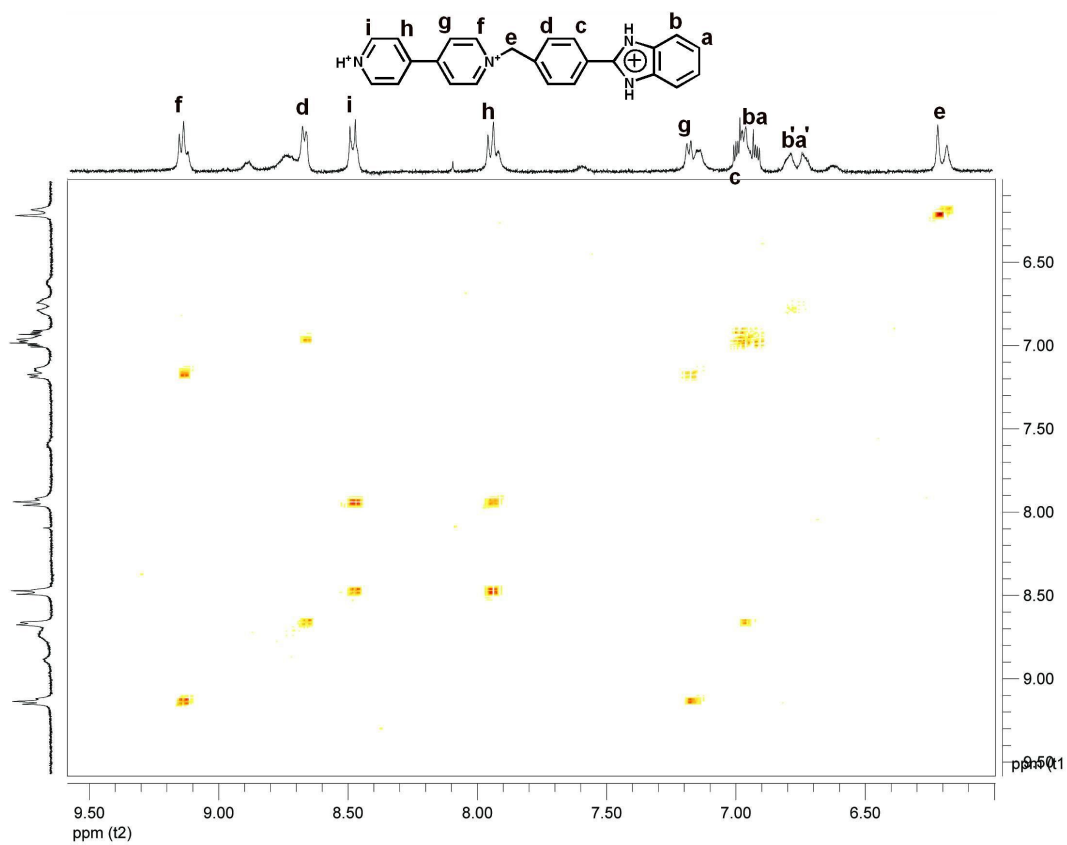


Fig. S6. The ESI-MS for the inclusion complex $1^{3+}@Q[7]$.

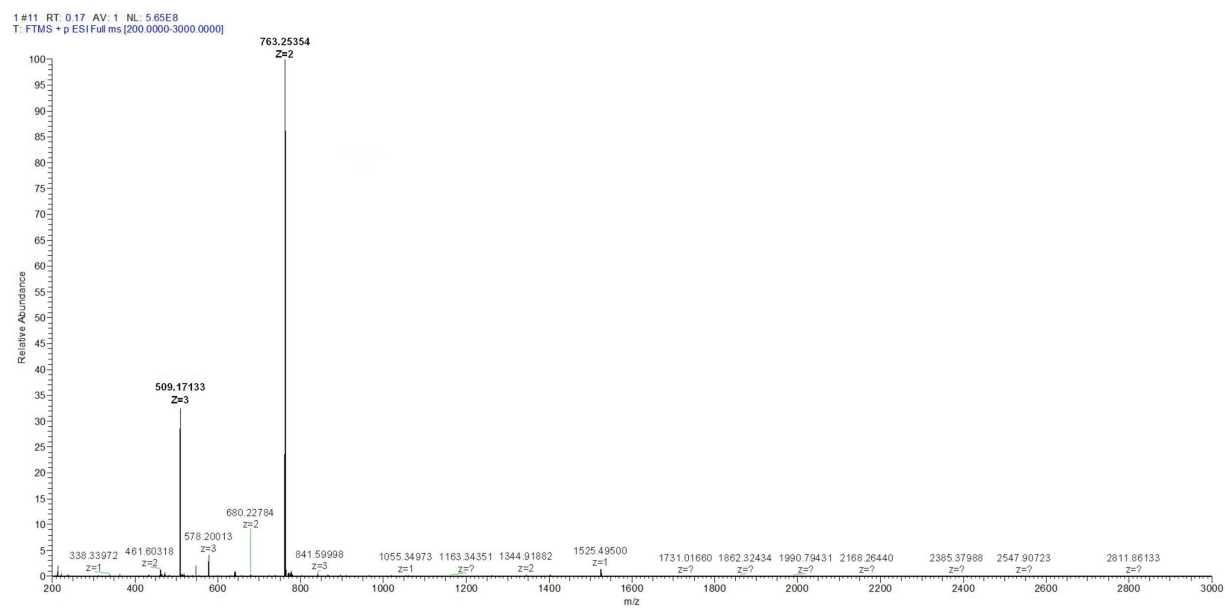


Fig. S7. The ESI-MS for the inclusion complex $1^{3+}@Q[7]_2$.

1 #11 RT: 0.17 AV: 1 NL: 3.57E6
T: FTMS + p ESI Full ms [200.0000-3000.0000]

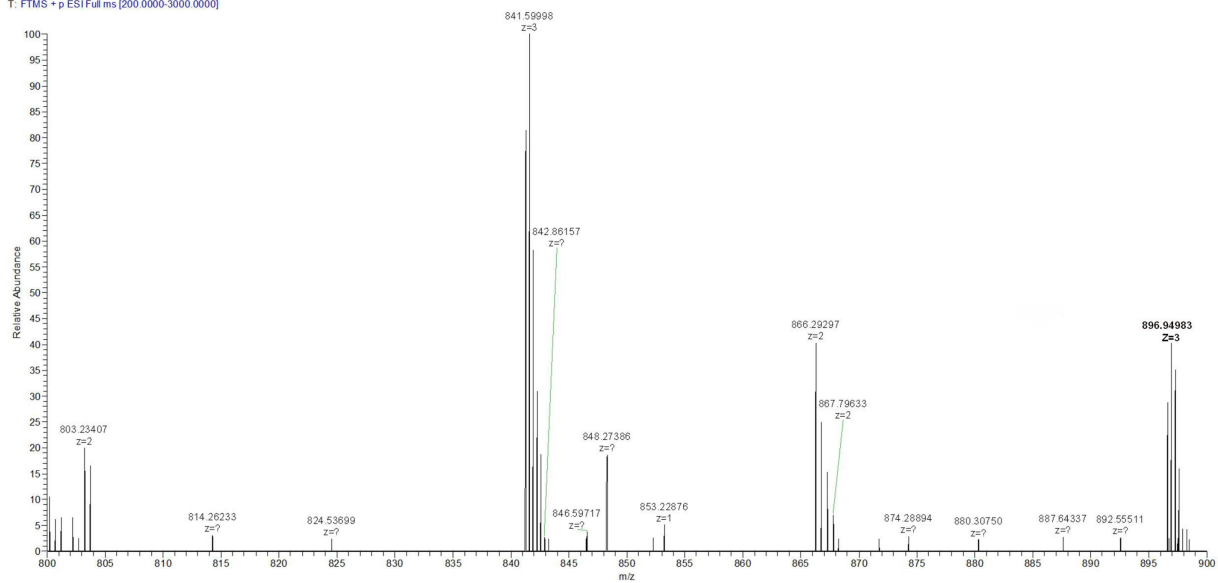


Fig. S8. (A) ^1H NMR spectra (400 MHz, D_2O) of 2-methylbenzimidazolium chloride in different equiv. of Q[7] at 20 °C. (B) ^1H NMR titration curve of 2-methylbenzimidazolium chloride by addition of Q[7] in D_2O .

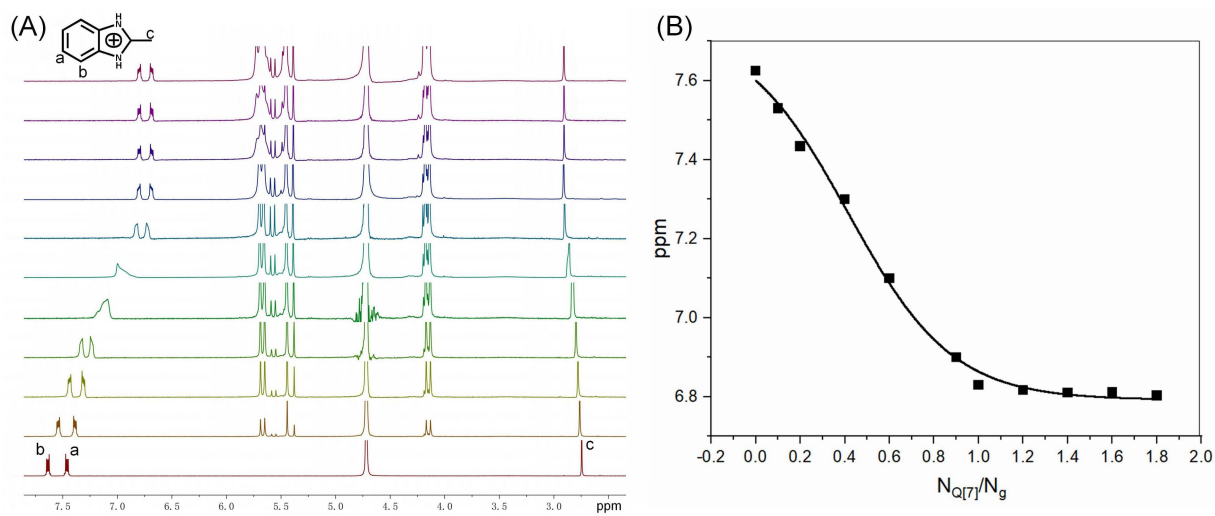


Fig. S9. ESR spectra of the compounds $1\cdot\text{Cl}_3$ and $(1-2\text{H})\cdot\text{Cl}$.

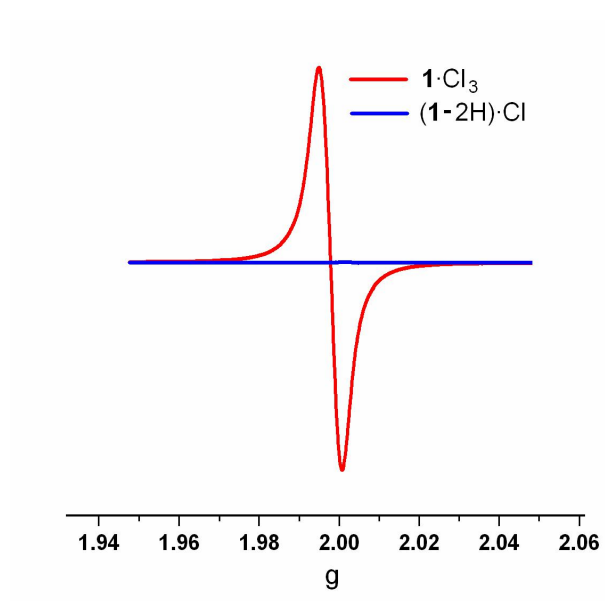


Fig. S10. ESR spectra of the compounds 2-methylbenzimidazolium chloride and methyl viologen.

