

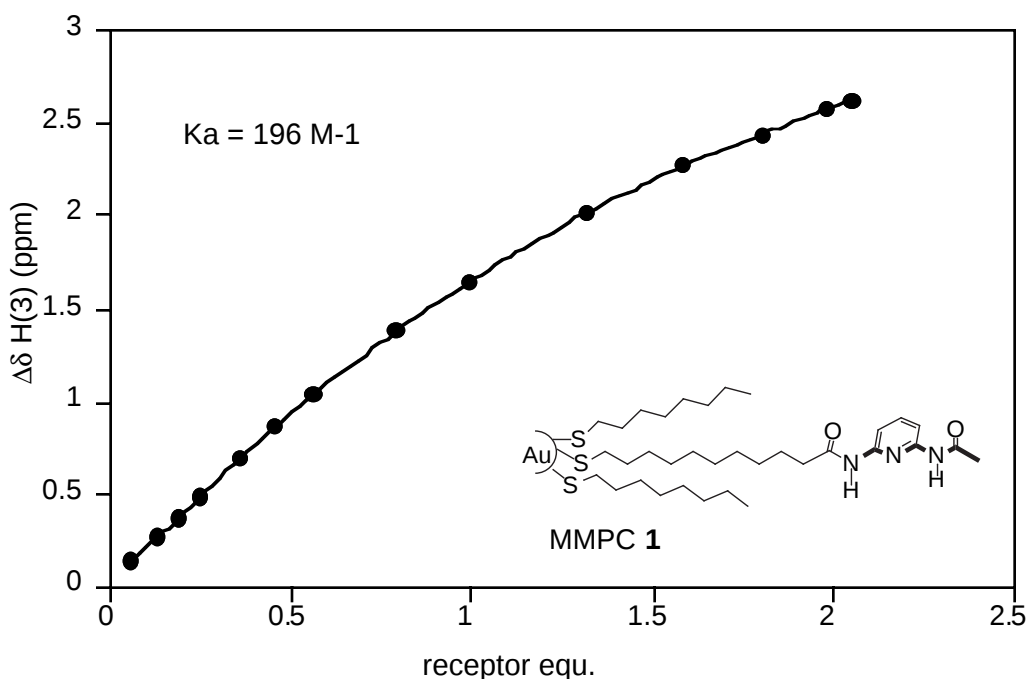
Supplementary Material

Radial Control of Recognition and Redox Processes using Multivalent Nanoparticle Hosts

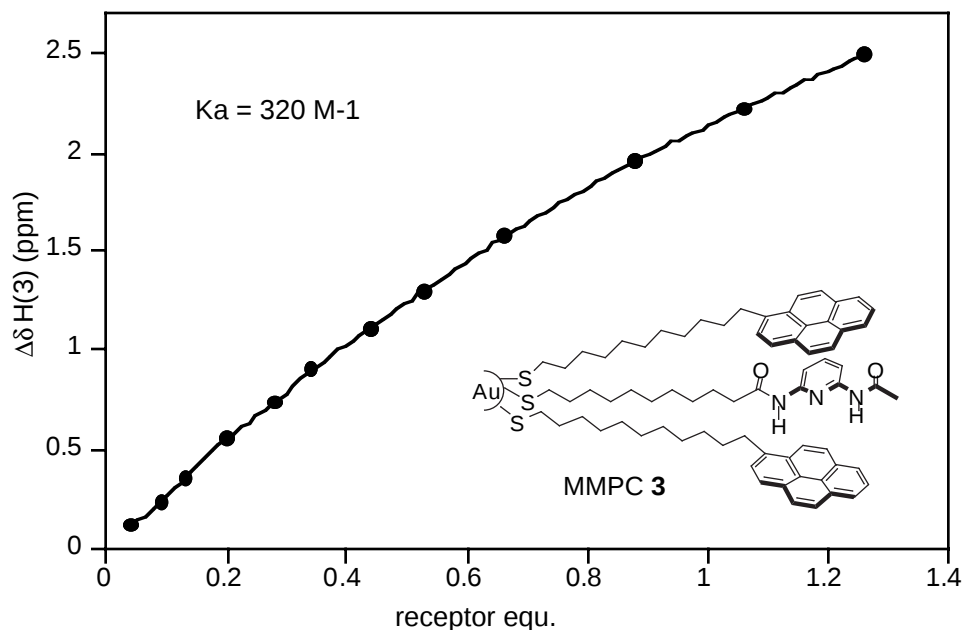
Andrew K. Boal, and Vincent M. Rotello*

Information on NMR titrations: All titrations were carried out at room temperature using CDCl_3 that had been stored over K_2CO_3 . For MMPCs **1** and **3**, which were extremely soluble, these titrations were run using solutions of 15.8 mM and 13.2 mM concentration of diaminopyridine equivalents of the hosts and a 5 mM concentration solution of Fl_{ox} . As a result of the limited solubility of MMPCs **2** and **4**, the concentration of these solutions was 3 mM and the Fl_{ox} solution was 2 mM. Titrations were run according to the constant host method. Line represents fit to 1:1 binding isotherm.

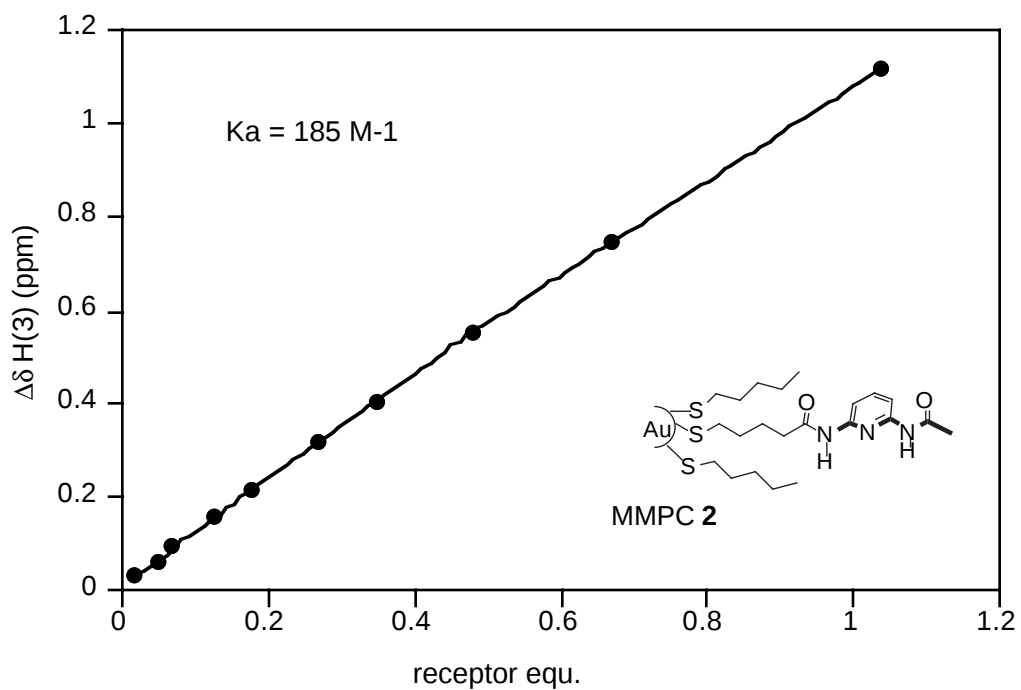
NMR titration of Fl_{ox} by MMPC **1**:



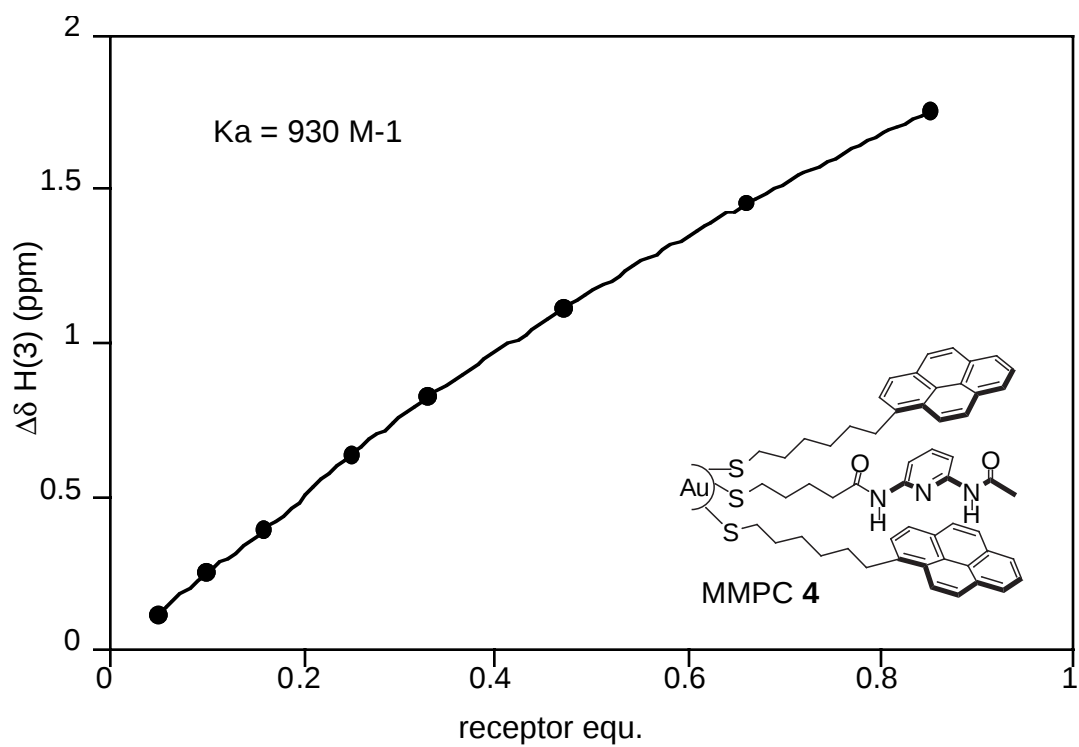
NMR titration of Fl_{ox} by MMPC **3**:

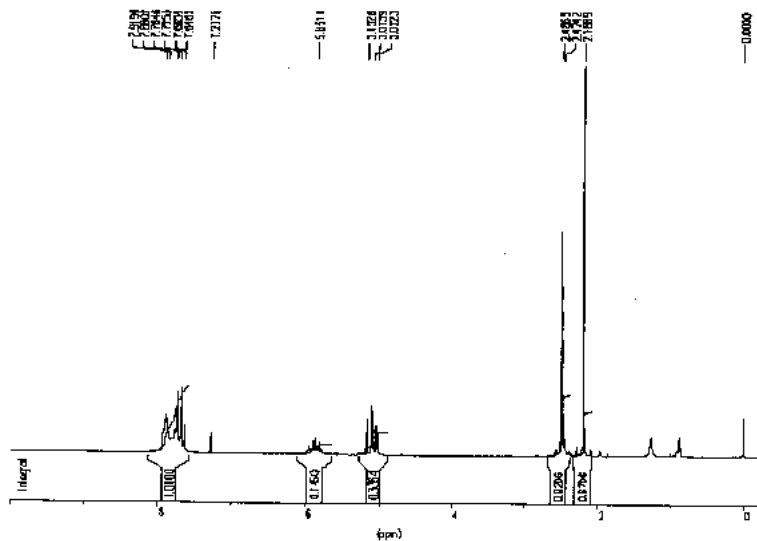
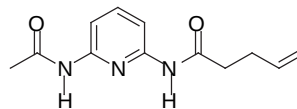
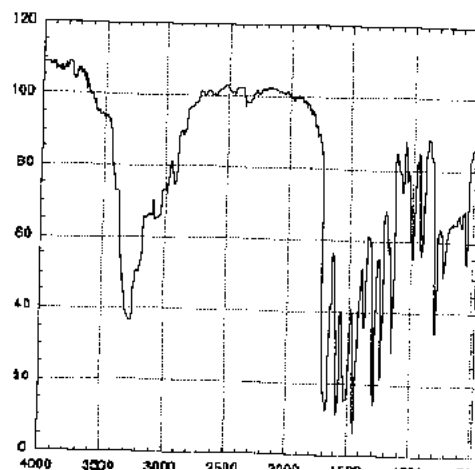


NMR titration of Fl_{ox} by MMPC 2:



NMR titration of Fl_{ox} by MMPC 4:





12) Elemental Analysis C₁₂H₁₁N₂O₂ 13) Theoretical % of elements C 61.71, H 4.75, N 13.54
 14) Preparation (see above) 15) Further analysis or other problems with this
 * Discussion

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Positive analysis as required by

Other analysis as specified below

Carbon 61.59

Metal

Hydrogen 4.8

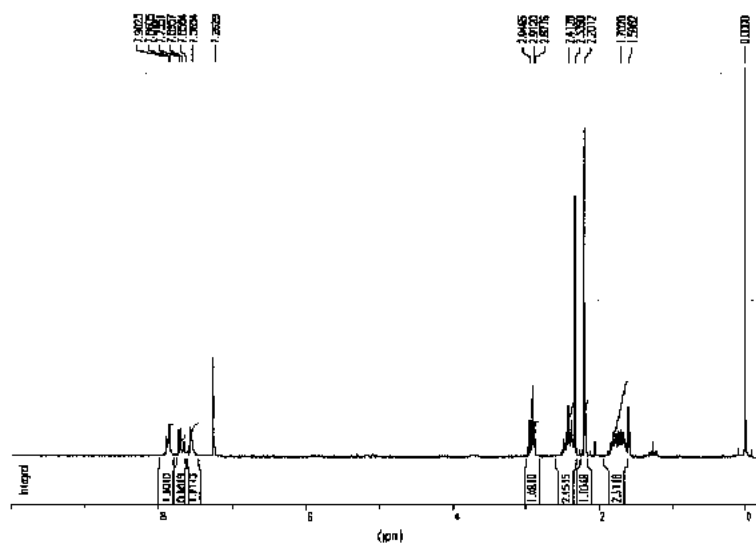
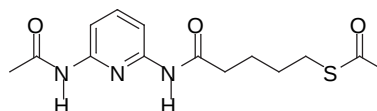
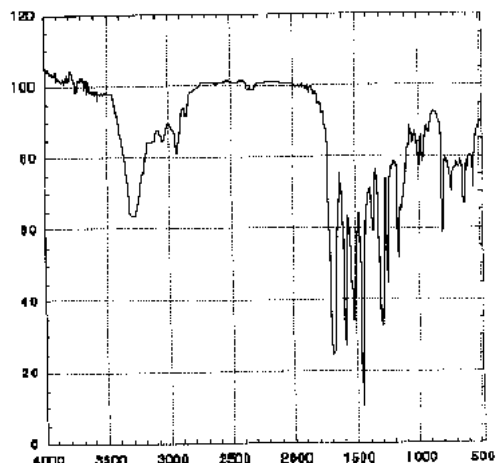
Water (by Karl Fischer)

Nitrogen 17.86

Sample Drying

Moisture

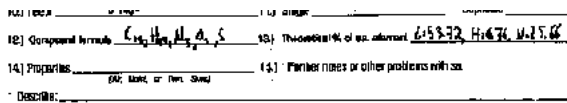
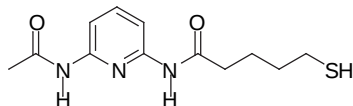
Special Weighing



10.1 Toluene 11.1 100%
 12. Compound formula $C_{17}H_{19}N_2S$ 13. Theoretical % of elem. element $C: 69.34, H: 6.19, N: 13.59$
 14. Properties (M.P., B.P., or other data) 15. Further notes or other problems with sol.
 * Describe:

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Found by analysis as received %	Other analysis as specified below
Carbon 54.50	Moist
Hydrogen 6.15	Water (by Karl Fischer)
Nitrogen 13.54	Sample Drying
Phosphorus	Special Weighing



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Ascorbic acid analysis as weight %

Carbon 53.90

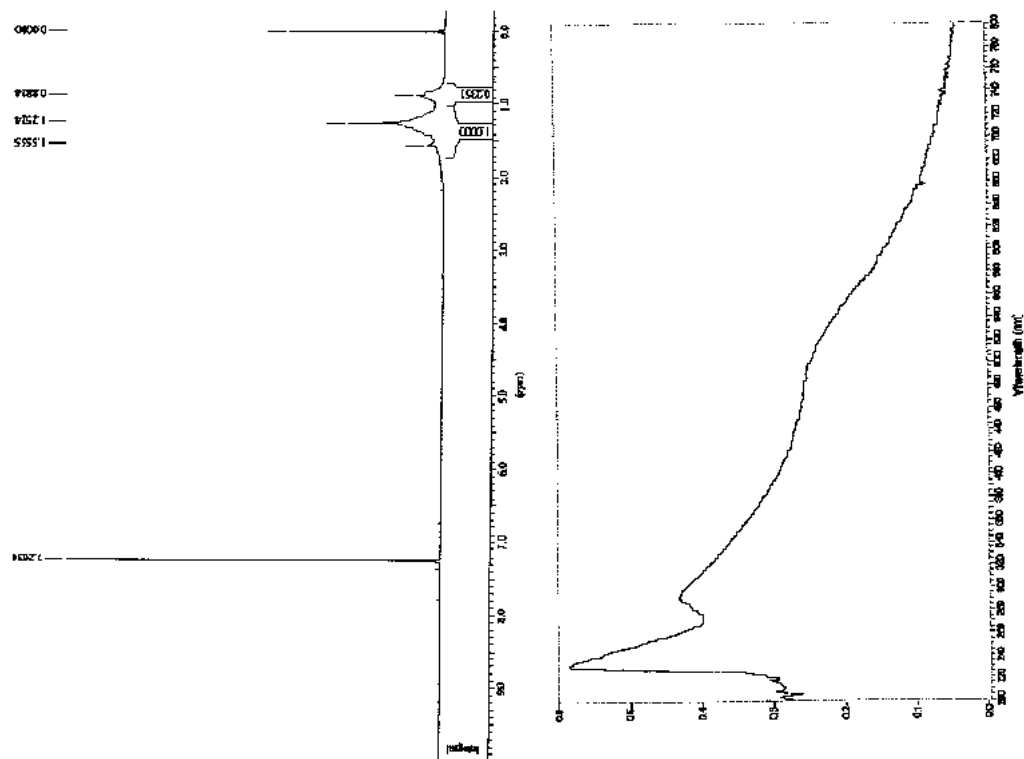
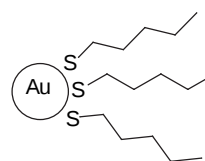
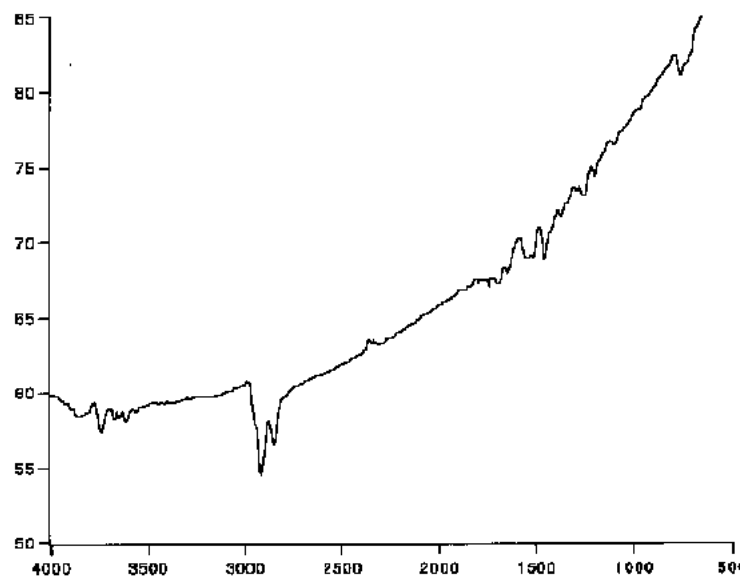
Hydrogen 6.65

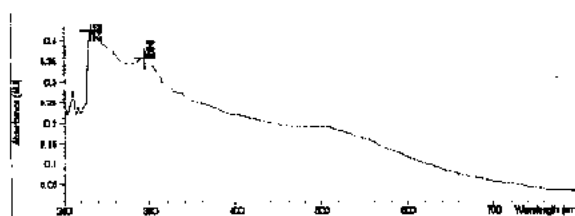
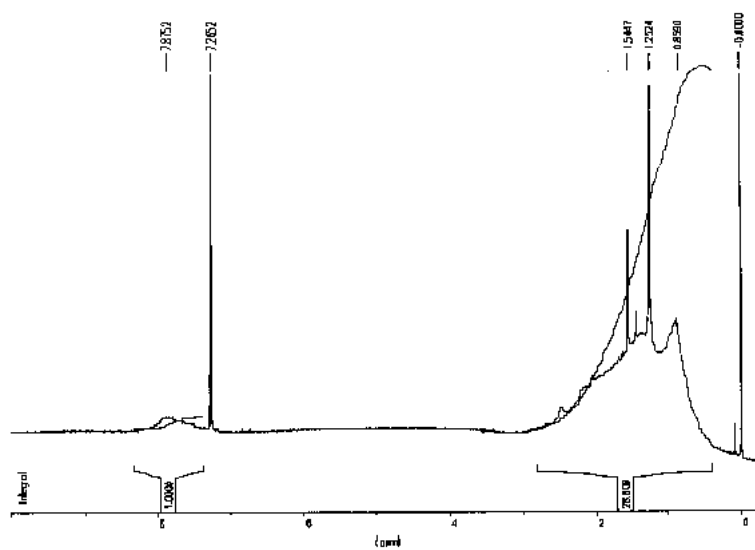
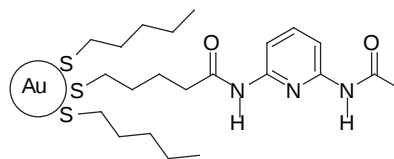
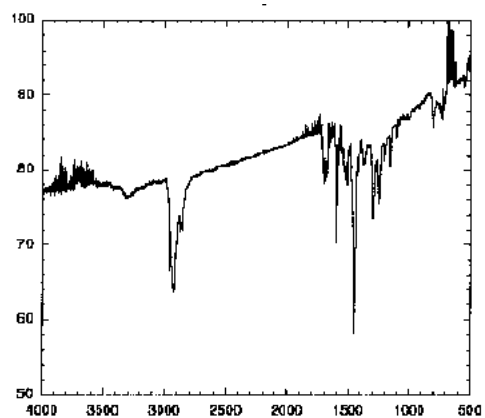
Nitrogen 15.55

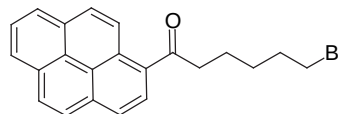
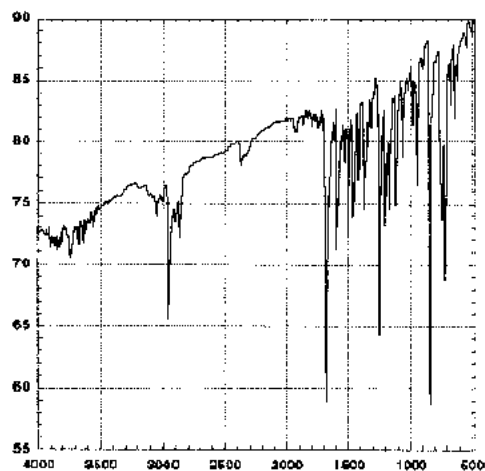
Water (by Karl Fischer)

Sample drying

Other analysis as specified below







C. 28.177
 u. 14.52
 G. 7.95
 O. 16.324

MICROANALYSIS LABORATORY
 URBAN CHEMICALS Bldg. Rm. 417
 THUNDERBOLT (417) 2-0000
 C-2716 H-505

Flourine analysis and weight %

	Other analysis
Carbon <u>64.64</u> <u>68.56</u>	Melting ☐
Hydrogen <u>5.10</u> <u>5.01</u>	Water: Dry Karl
	Refractive Index

