

The Stability of Imine-Containing Dynamic [2]Rotaxanes to Hydrolysis

Ken Cham-Fai Leung^{a,b,*}, Wing-Yan Wong^a, Fabio Aricó^b,

Philip C. Haussmann^b, J. Fraser Stoddart^{b,c,*}

Supporting Information

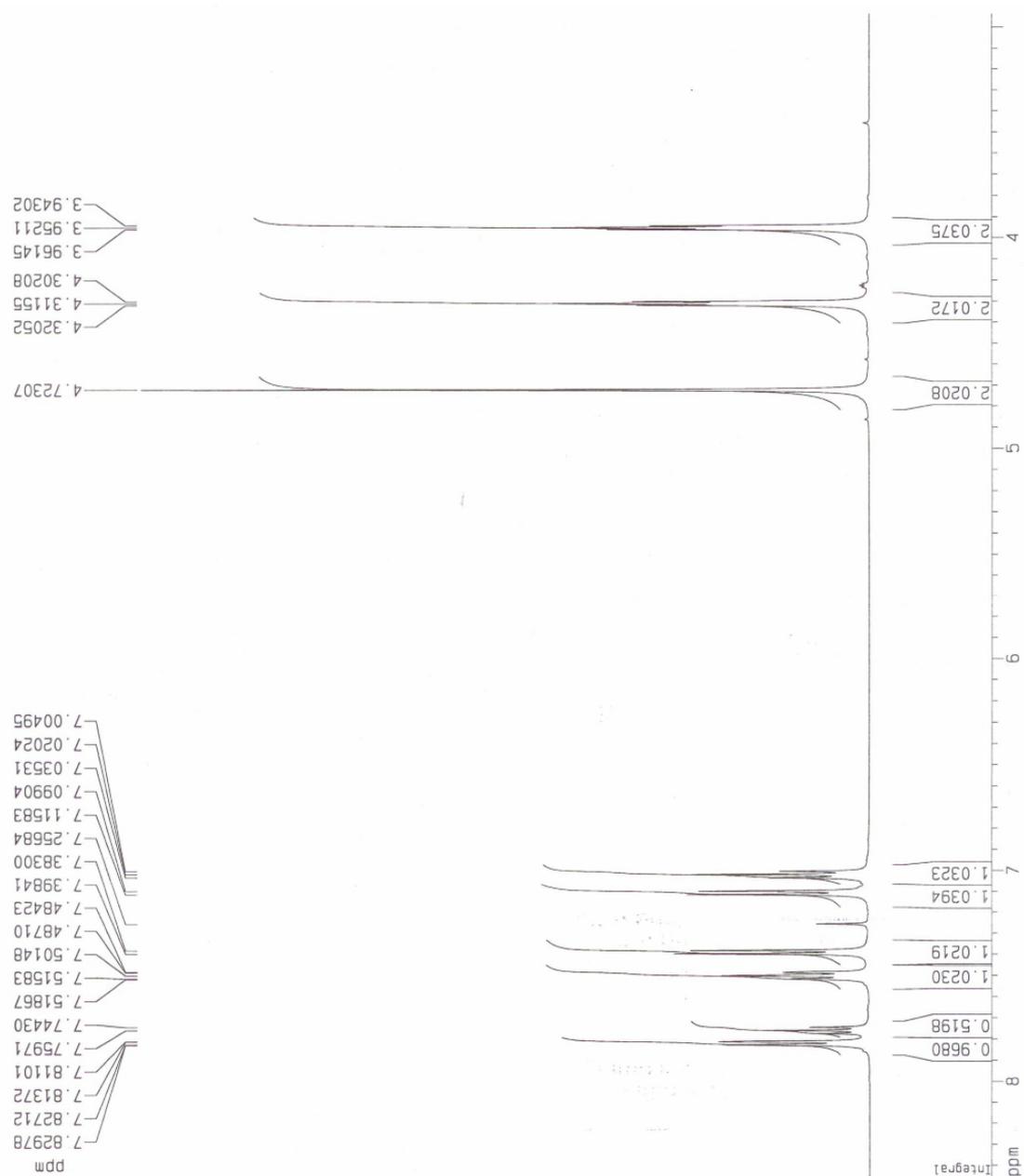
^a *Center of Novel Functional Molecules, Department of Chemistry, The Chinese University of Hong Kong, Shatin, NT, Hong Kong SAR, P. R. China.*

Fax: (+852) 2603-5057; E-mail: cfleung@cuhk.edu.hk

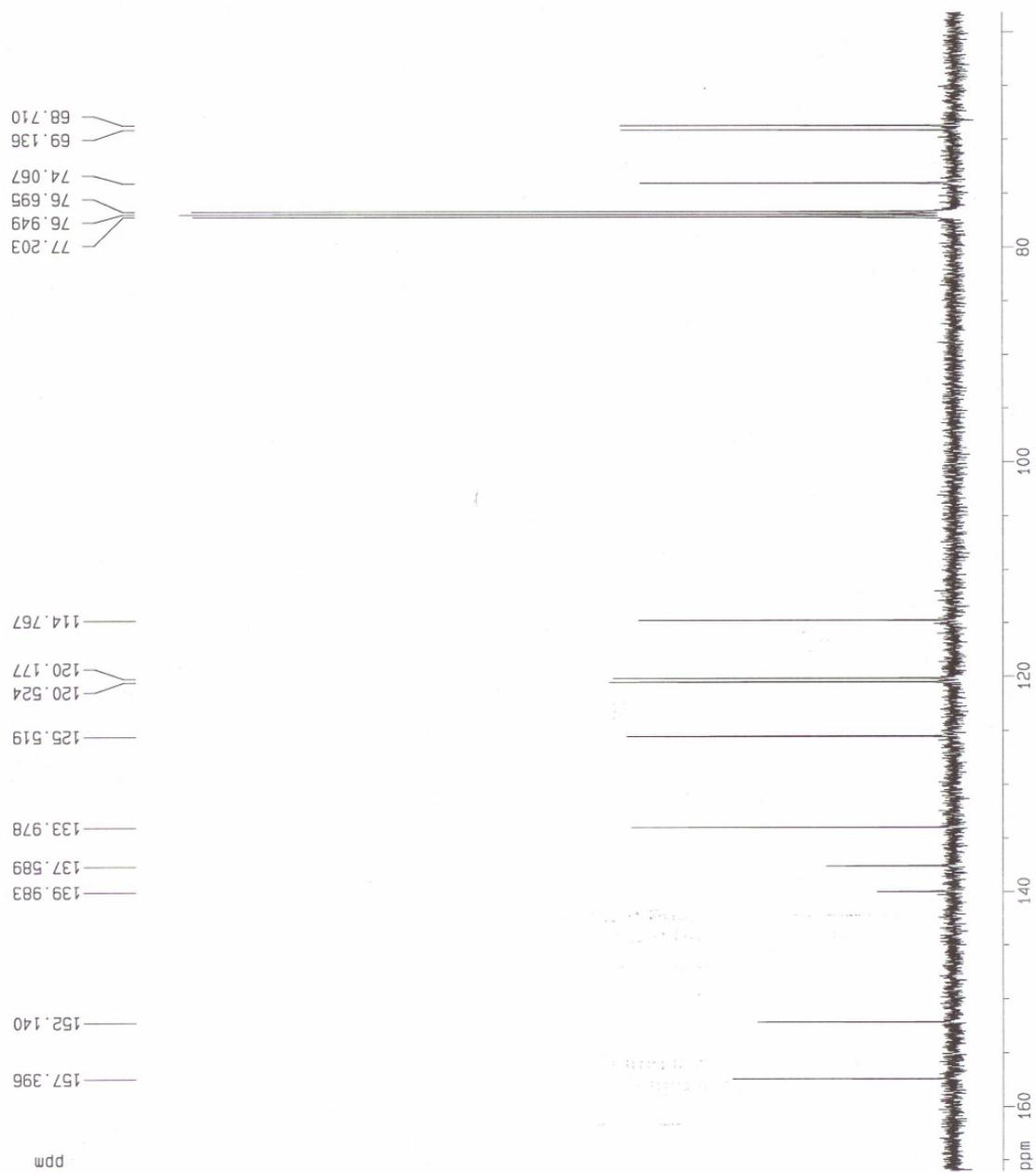
^b *California NanoSystems Institute and Department of Chemistry and Biochemistry, The University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, California 90095, USA.*

^c *Department of Chemistry, Northwestern University, 2145 Sheridan Road, Evanston, Illinois 60208, USA. Fax: (+1) 847-491-1009; E-mail: stoddart@northwestern.edu*

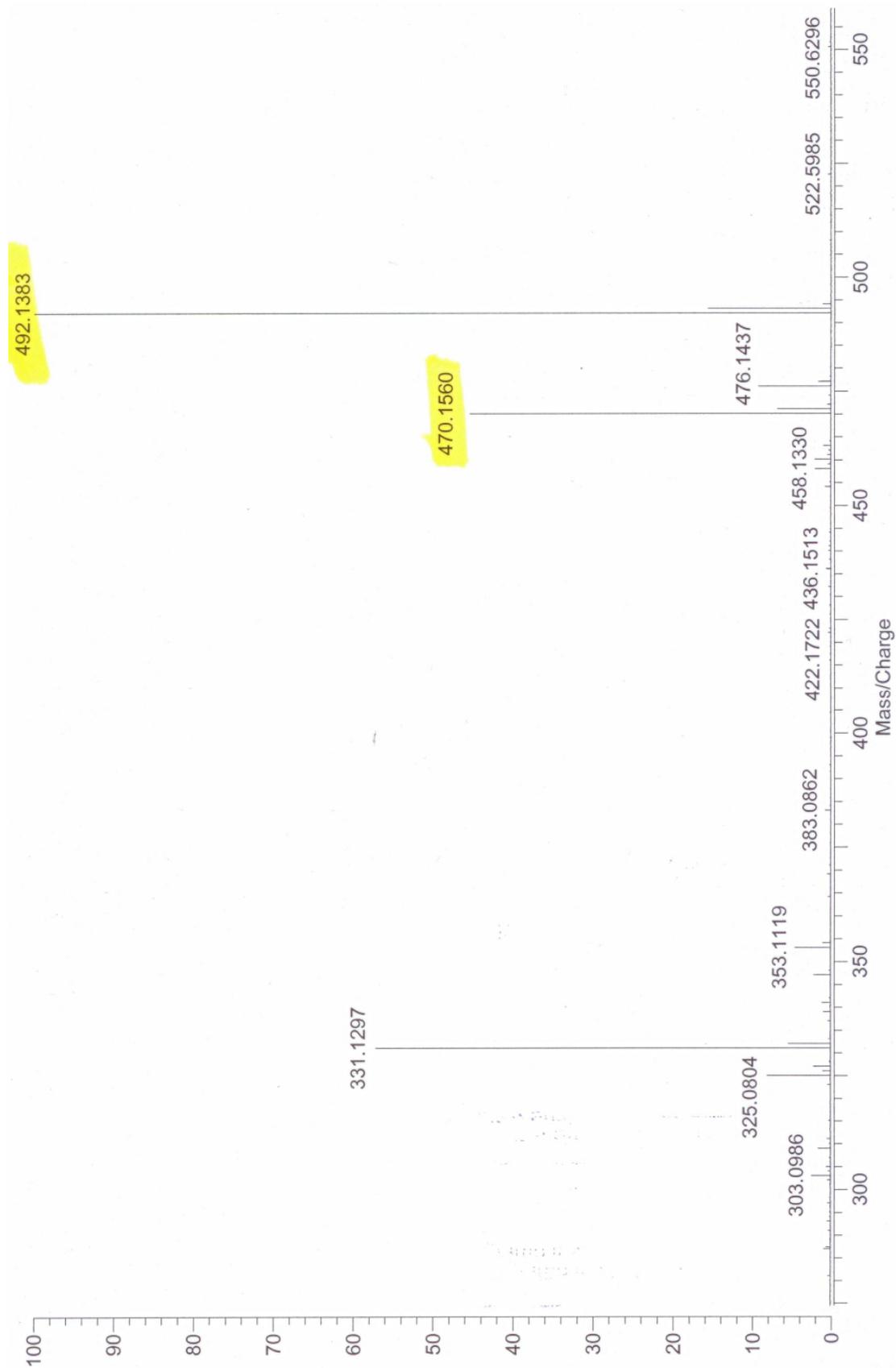
^1H NMR Spectrum (500 MHz, CDCl_3 , 298 K) of compound **8**



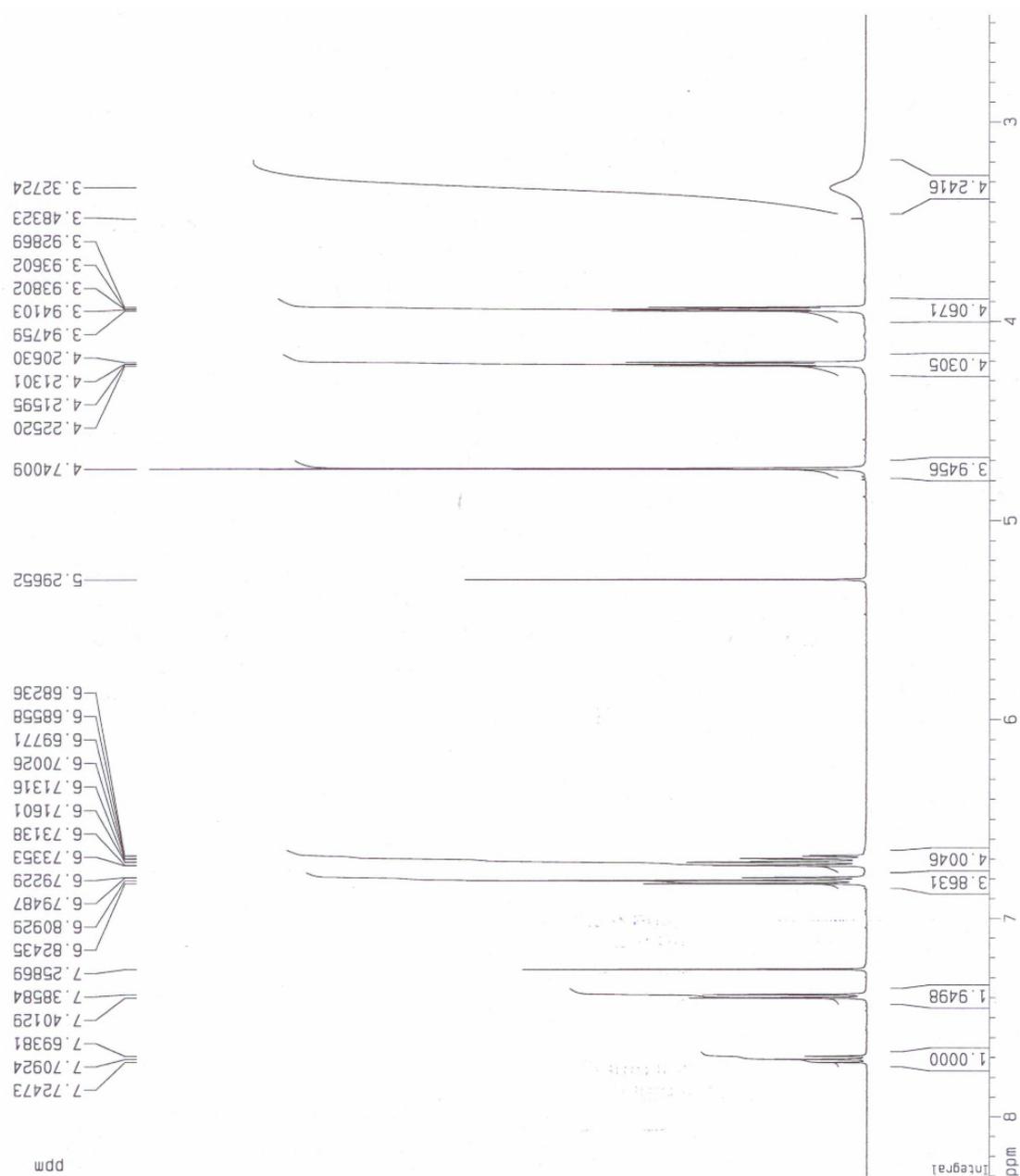
^{13}C NMR Spectrum (126 MHz, CDCl_3 , 298 K) of compound **8**



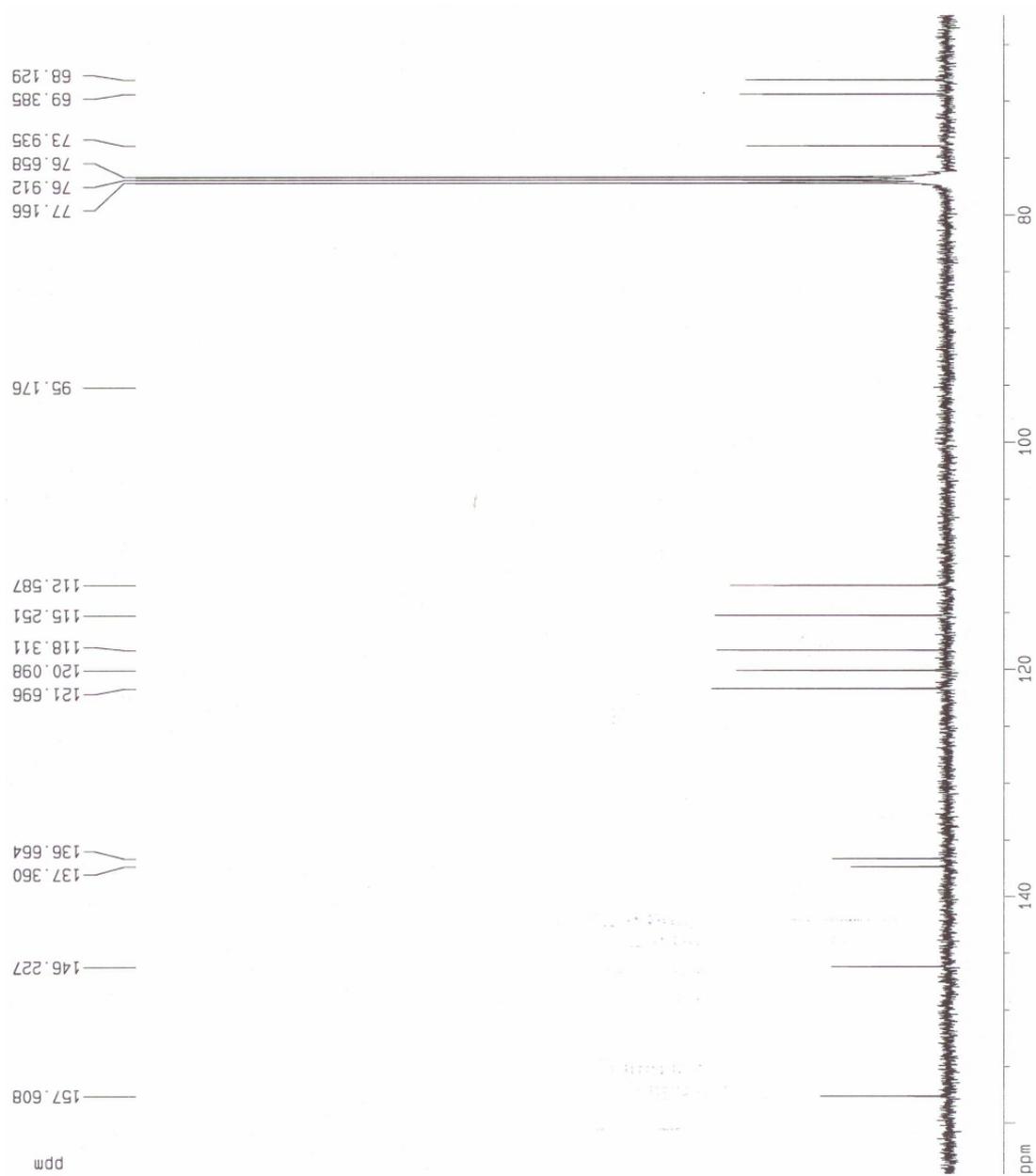
Mass spectrum (HR-MALDI-ICR) of compound **8**



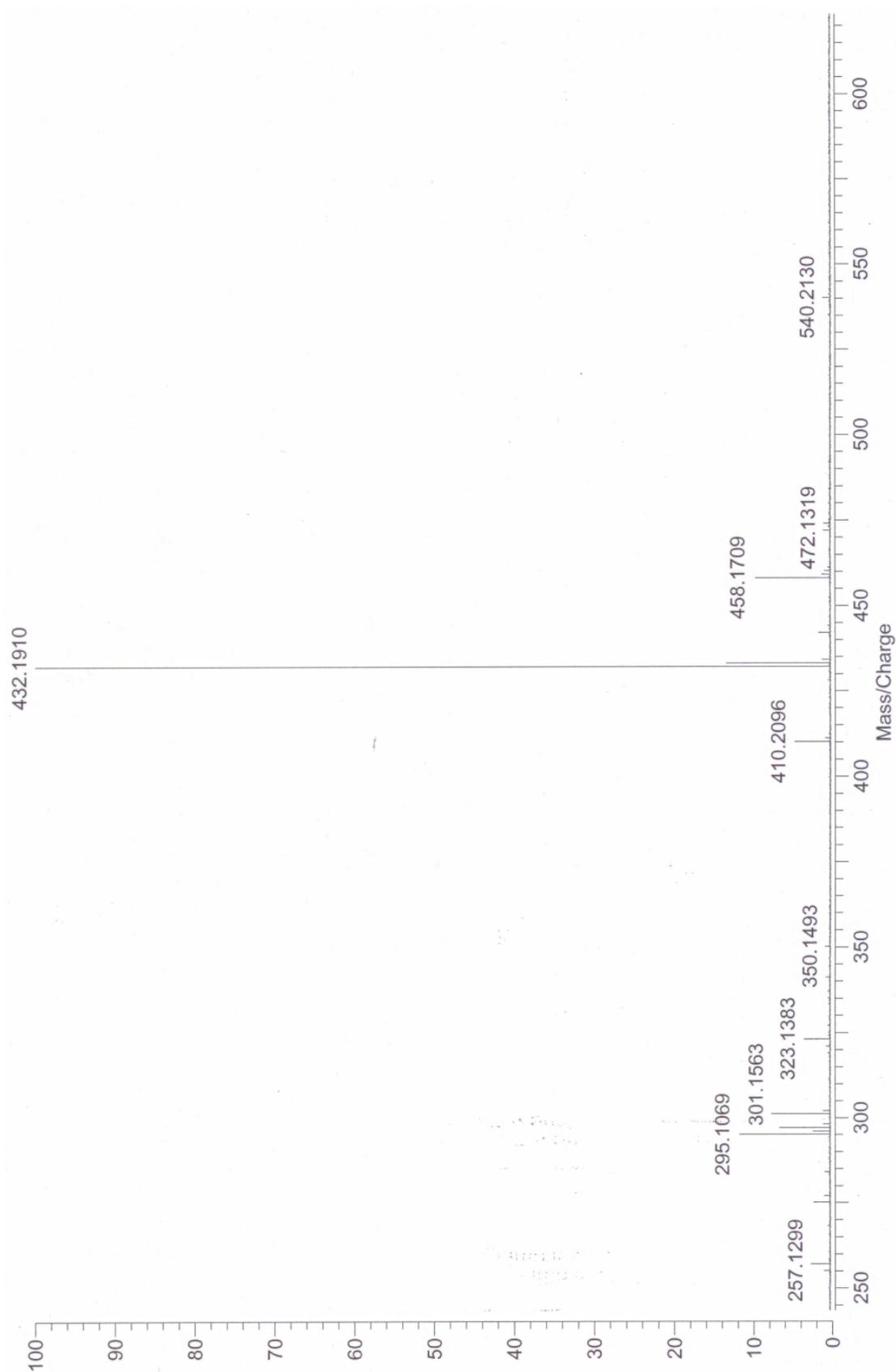
^1H NMR Spectrum (500 MHz, $\text{CDCl}_3/\text{CD}_2\text{Cl}_2$, 298 K) of compound **3b**.



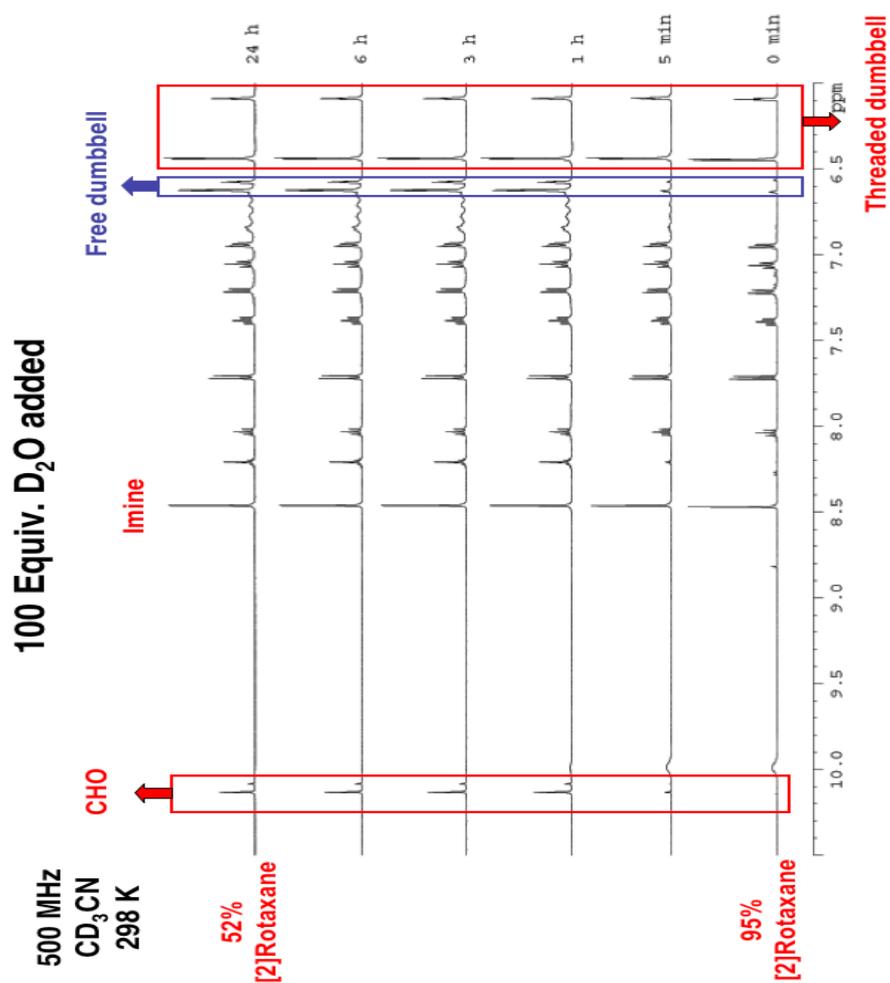
^{13}C NMR Spectrum (126 MHz, CDCl_3 , 298 K) of compound **3b**.



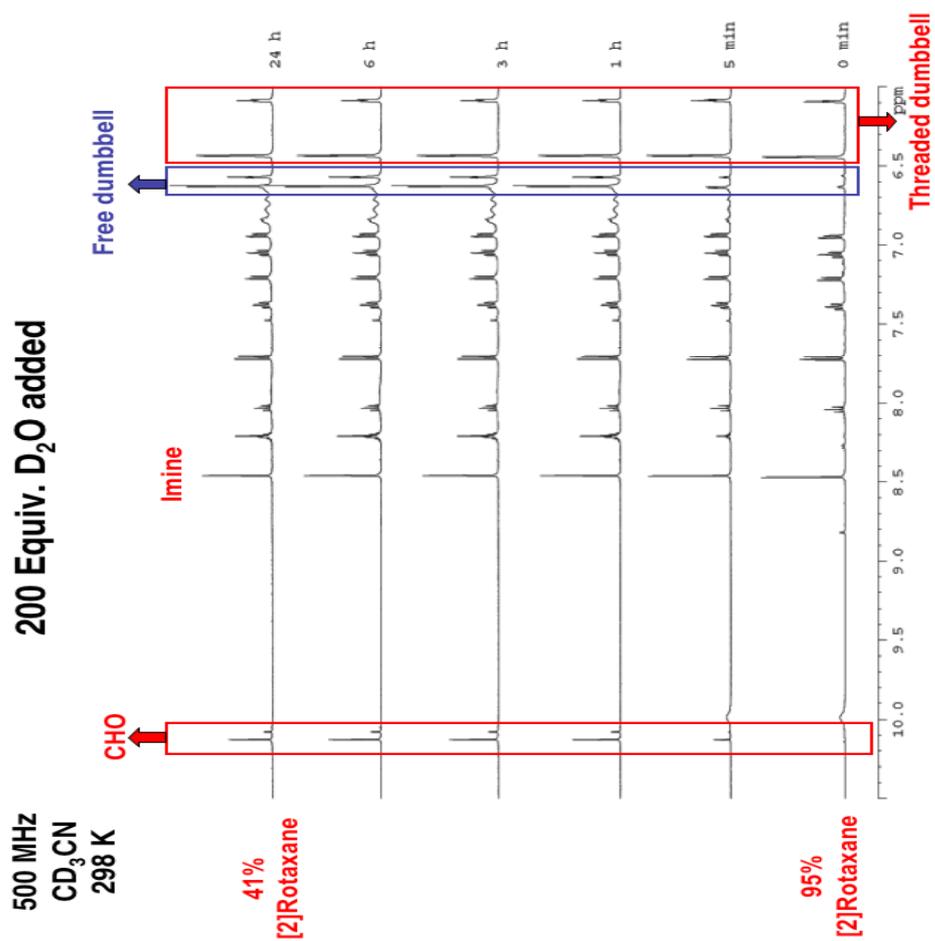
Mass spectrum (HR-MALDI-ICR) of compound **3b**.



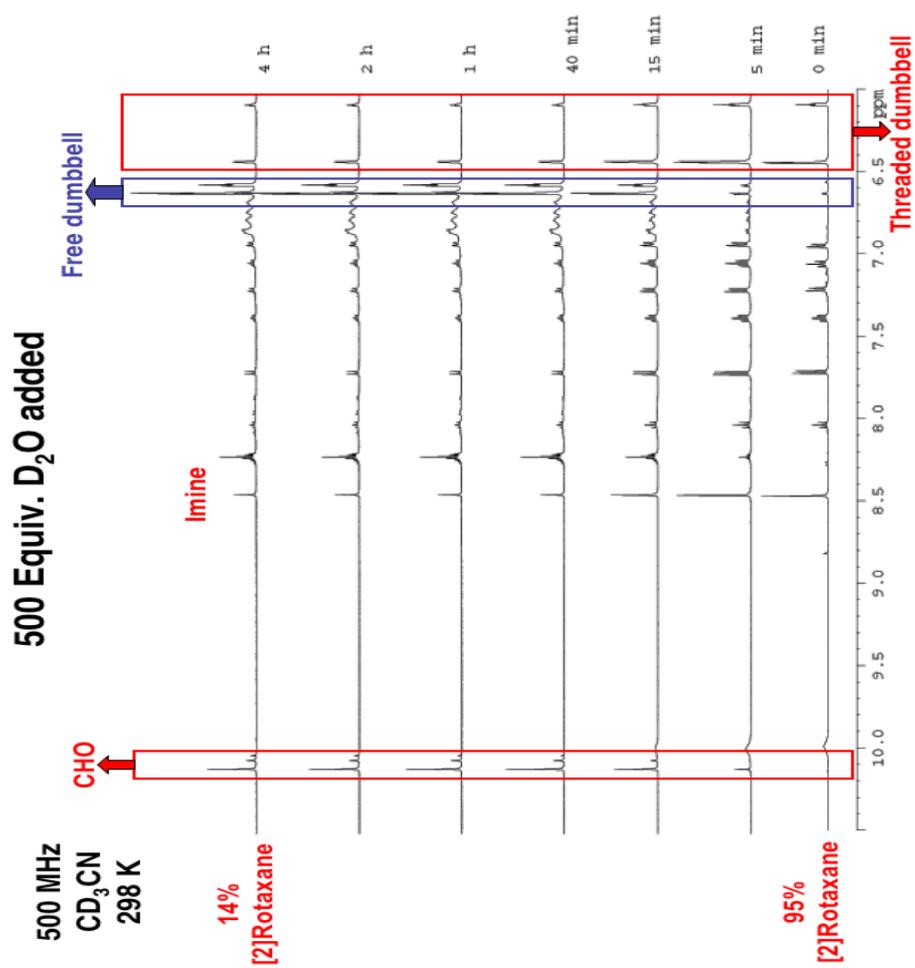
Stacked ^1H NMR spectra of [2]rotaxane **1a**·PF₆ with addition of 100 equivalents of D₂O according time.



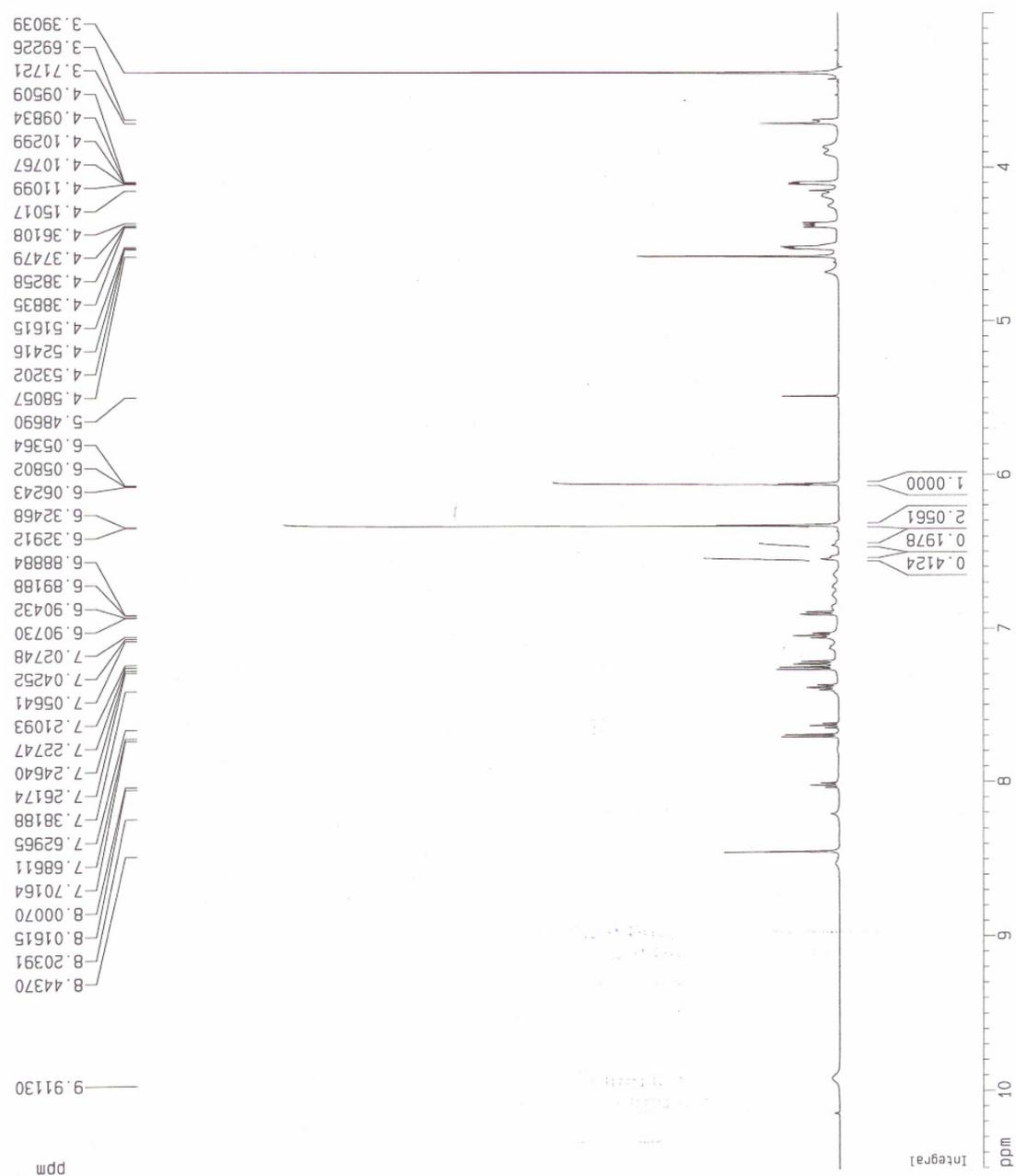
Stacked ^1H NMR spectra of [2]rotaxane **1a**·PF₆ with addition of 200 equivalents of D₂O according time.



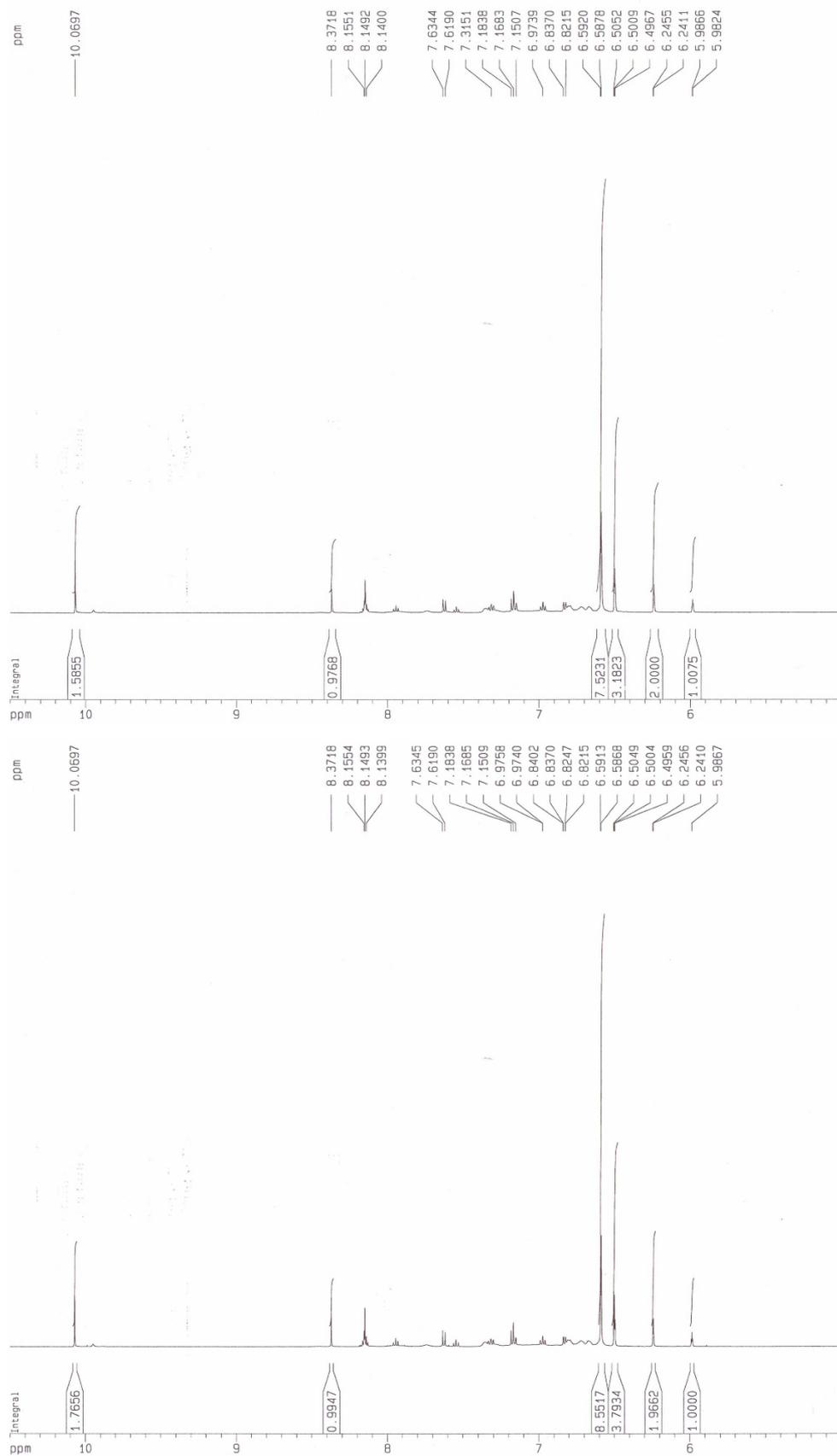
Stacked ^1H NMR spectra of [2]rotaxane **1a**·PF₆ with addition of 500 equivalents of D₂O according time.



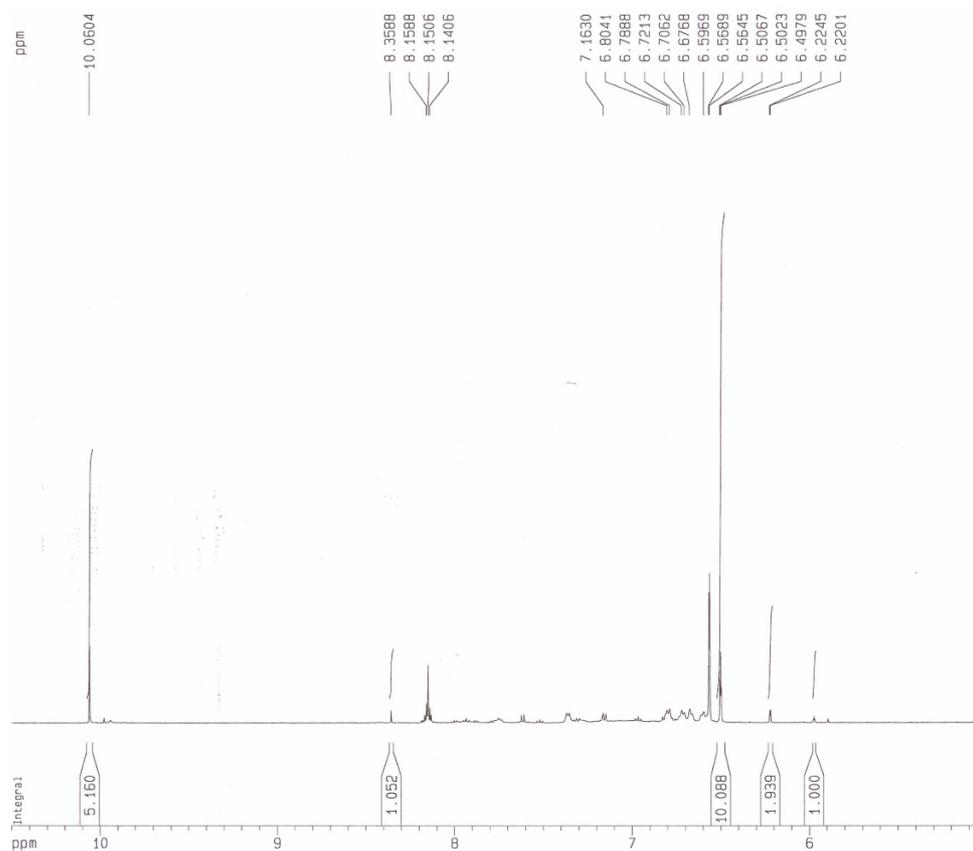
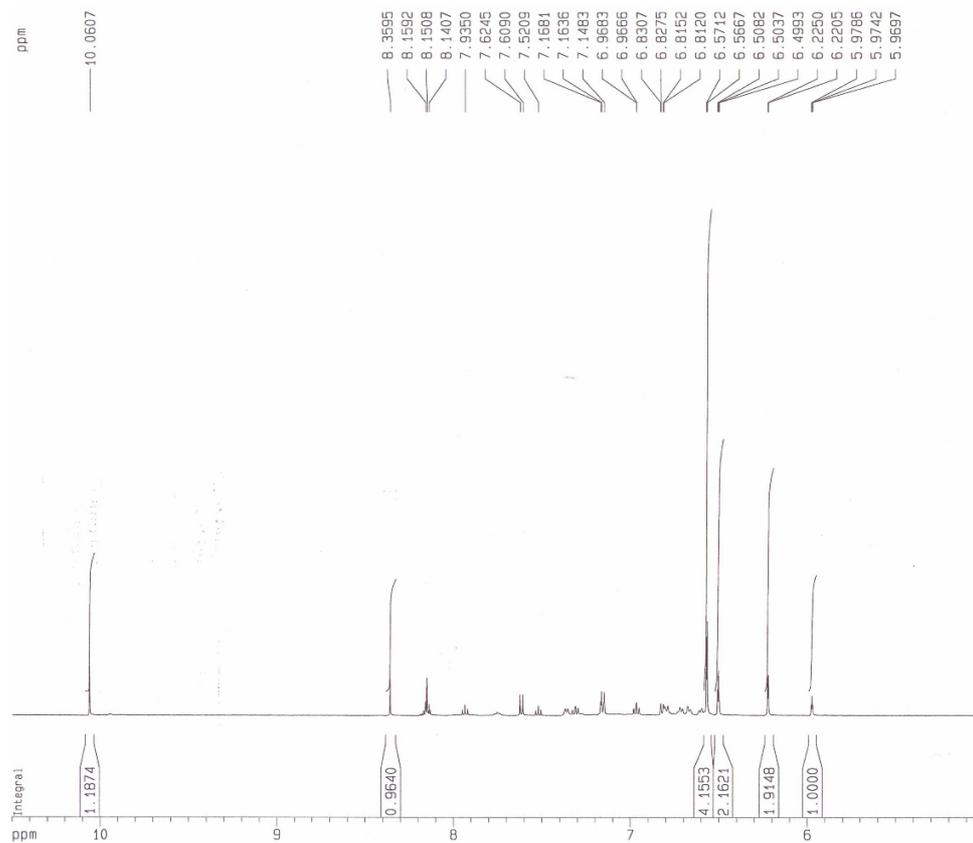
^1H NMR Spectrum (500 MHz, CD_3CN , 298 K) of [2]rotaxane **1b**· PF_6



^1H NMR Spectra (500 MHz, CD_3CN , 298 K) of [2]rotaxane **1b**· PF_6 with 100 equivalents of D_2O after 15 min (upper) and 4 h (lower).



^1H NMR Spectra (500 MHz, CD_3CN , 298 K) of [2]rotaxane **1b**· PF_6 with 250 equivalents of D_2O after 10 min (upper) and 4 h (lower).



^1H NMR Spectra (500 MHz, CD_3CN , 298 K) of [2]rotaxane **1b**· PF_6 with 500 equivalents of D_2O after 10 min (upper) and 6 h (lower).

