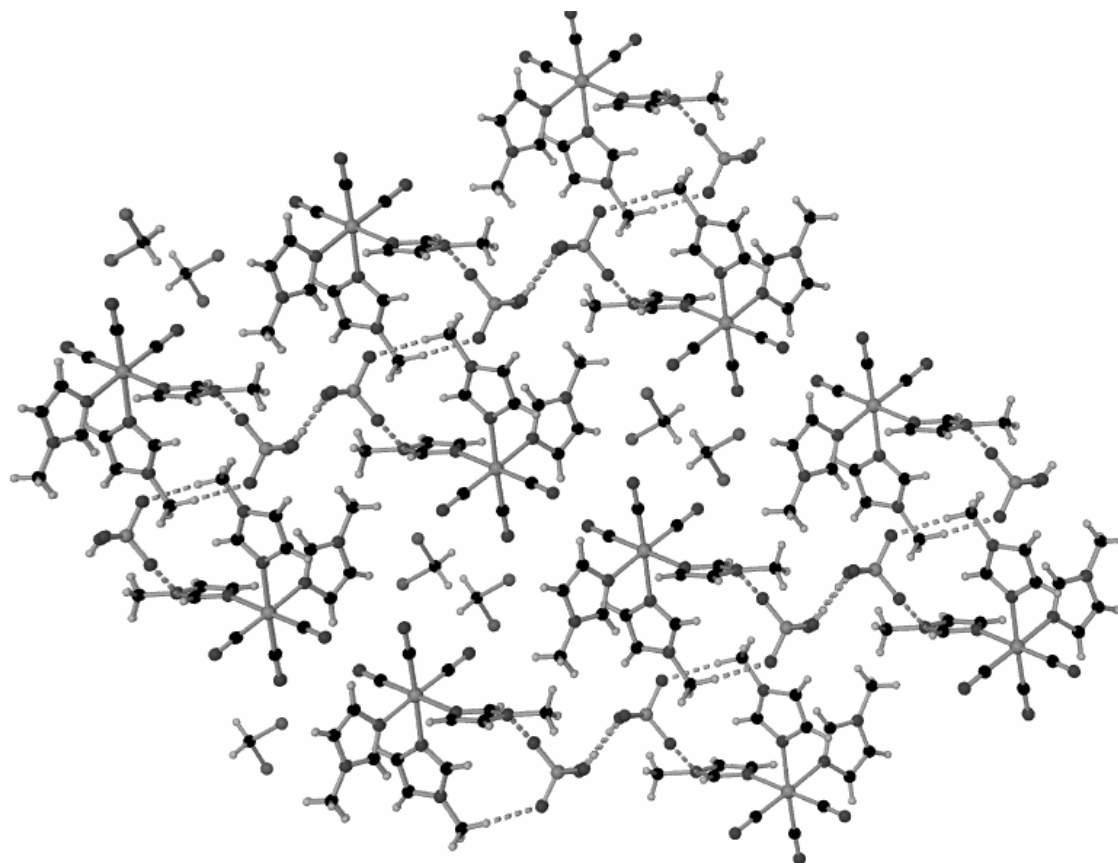


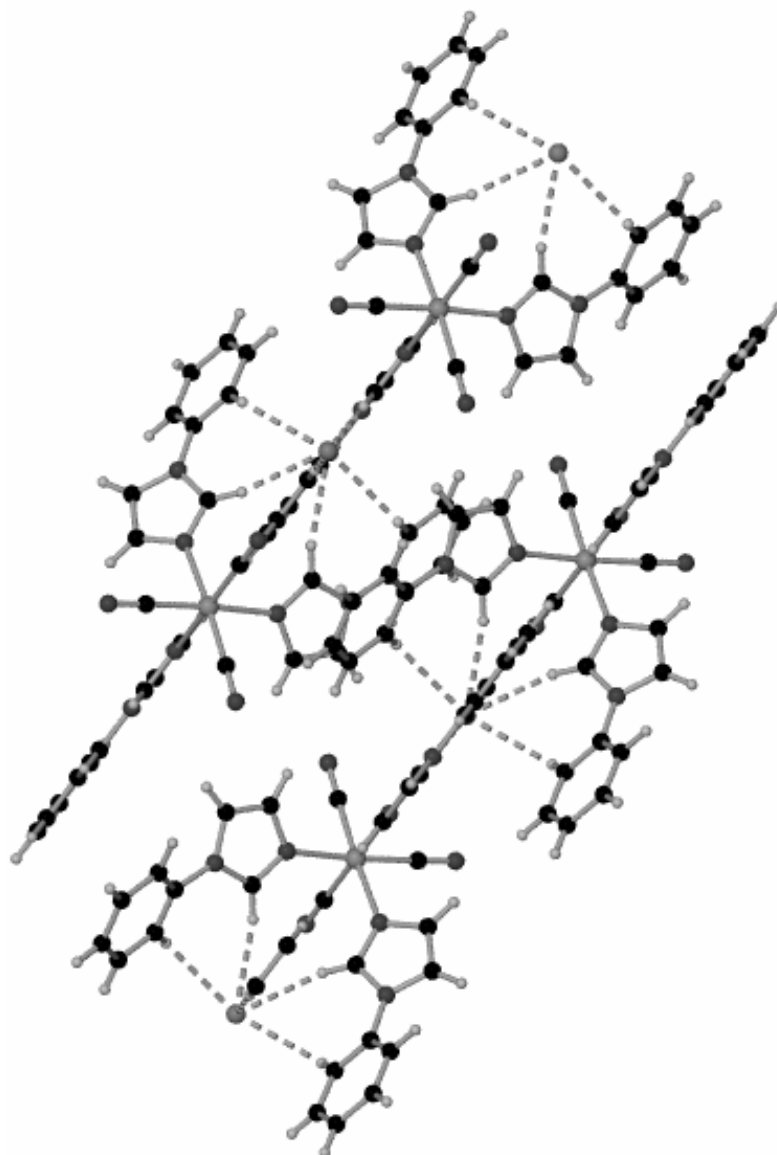
## **Supporting Information**

### **Second-sphere interaction of anions with a weakly binding metal complex host: probing the effect of counteranions**

**Laura Ion, Julio Pérez,\* Lucía Riera,\* Víctor Riera, Kirsty M. Anderson, Jonathan W. Steed and Daniel Miguel.**

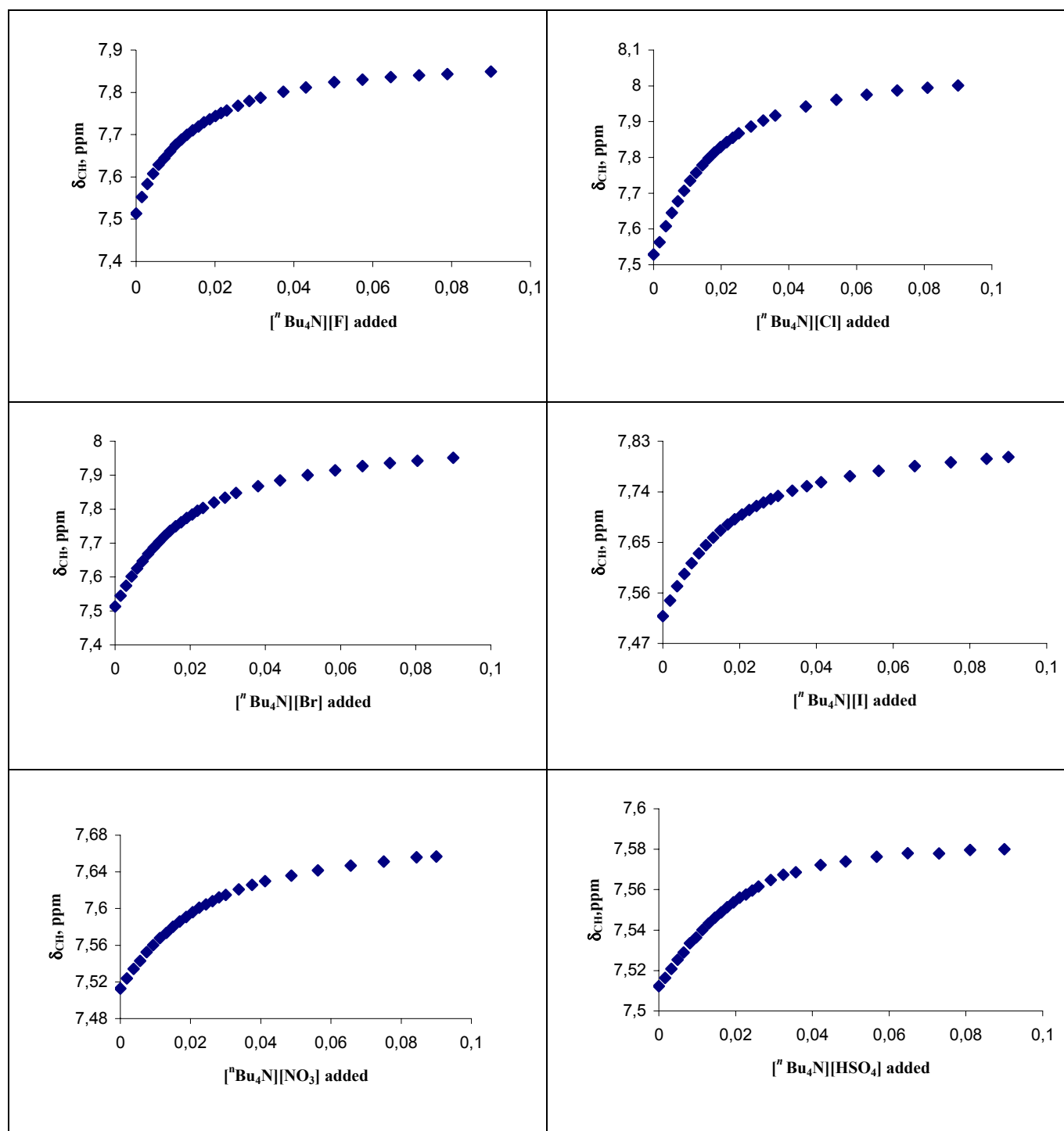


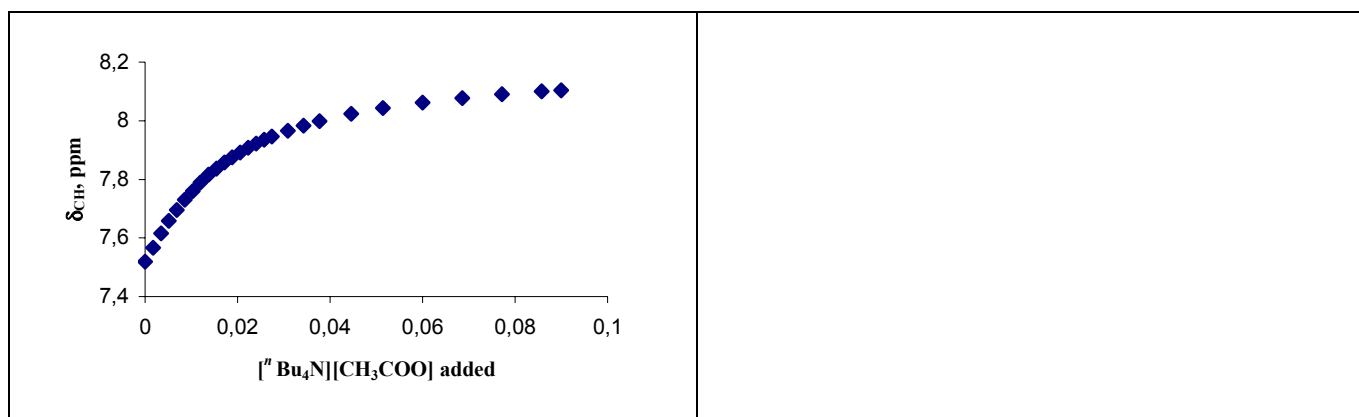
View of occupancy of the “hydrophobic” voids by dichloromethane molecules in between Re-dianion-Re ribbons in the structure of **6**.



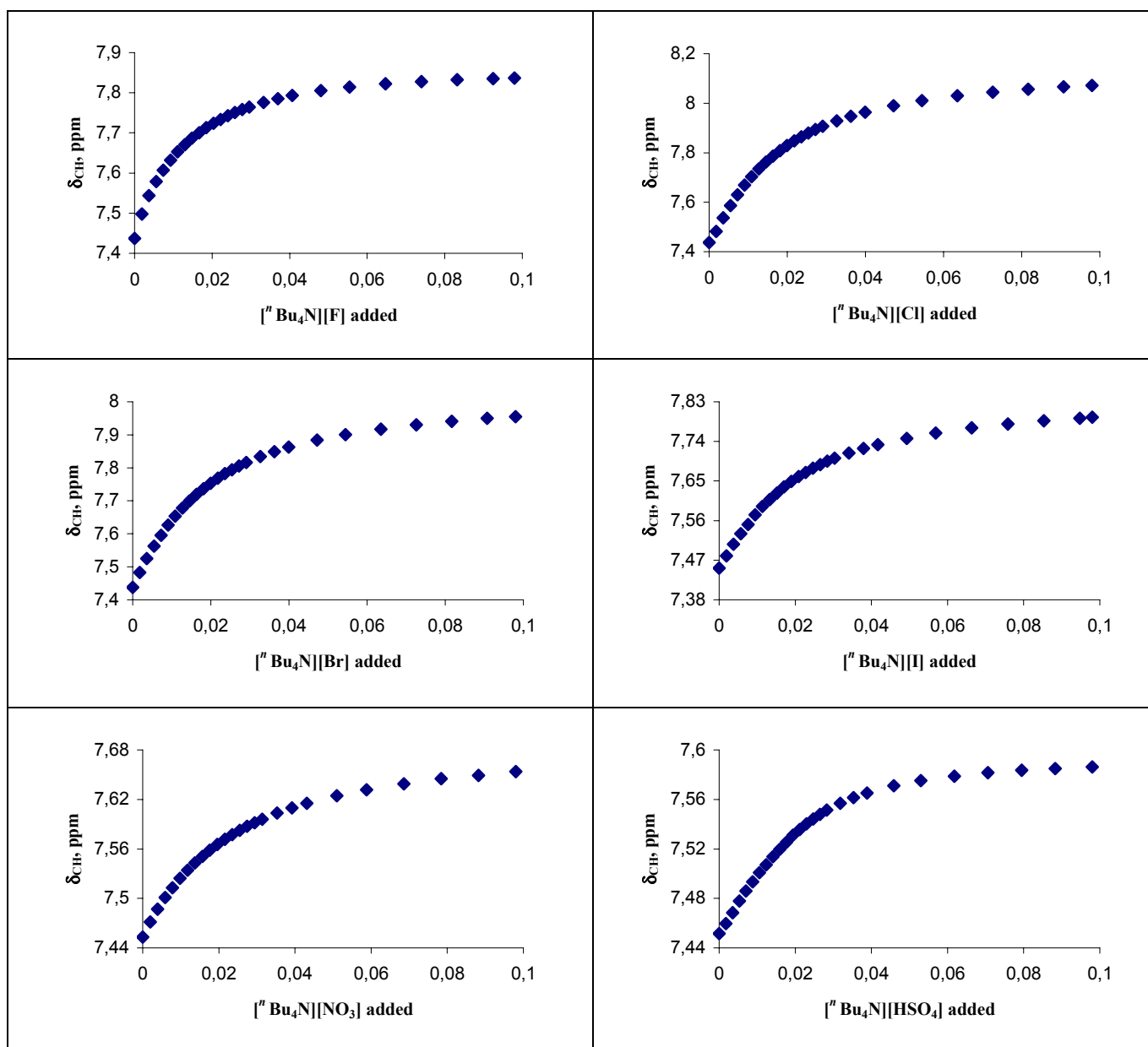
View of the anti-parallel chains present in the structure of **8**

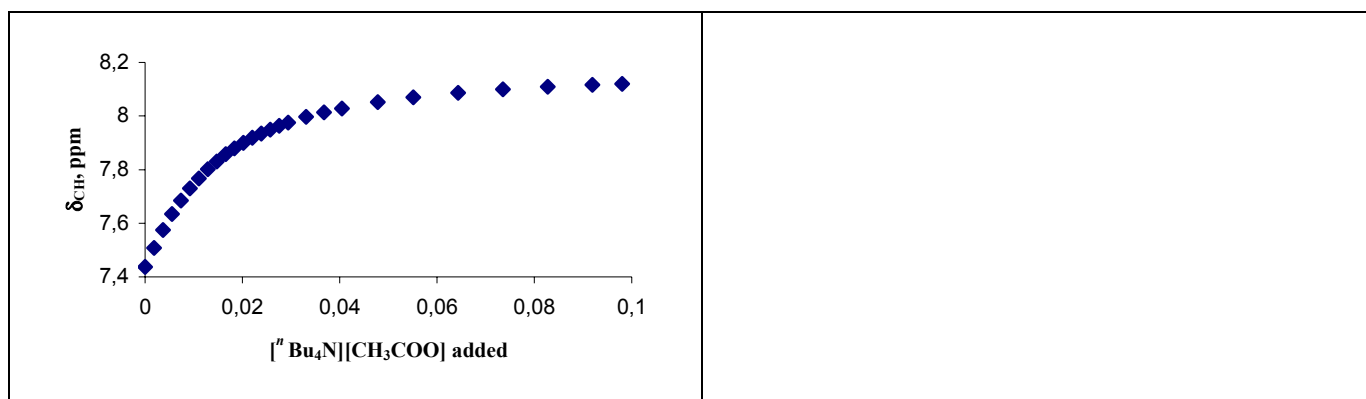
**<sup>1</sup>H NMR titration profiles of compound [Re(CO)<sub>3</sub>(HMeIm)<sub>3</sub>]OTf (1) in CD<sub>2</sub>Cl<sub>2</sub>**



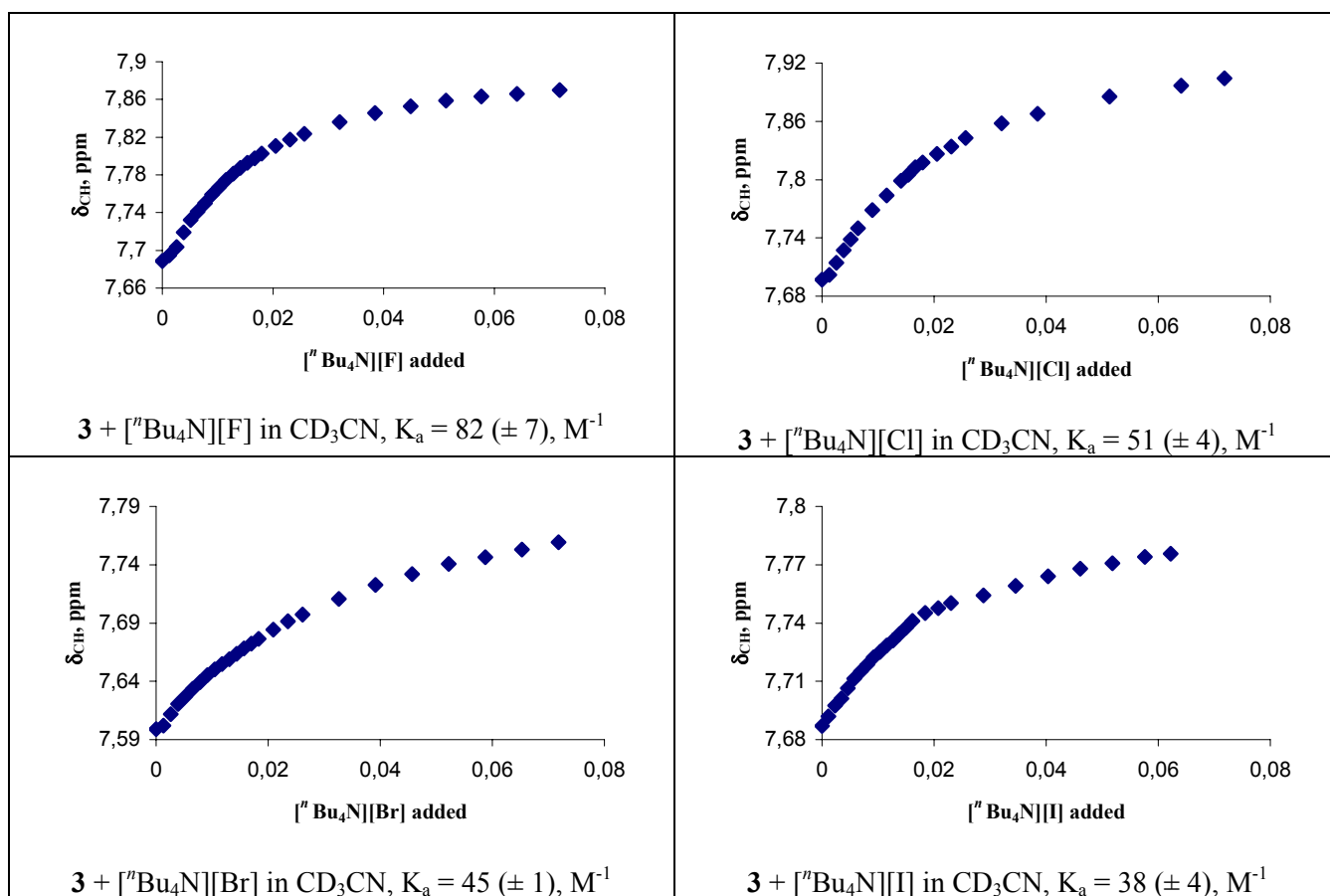


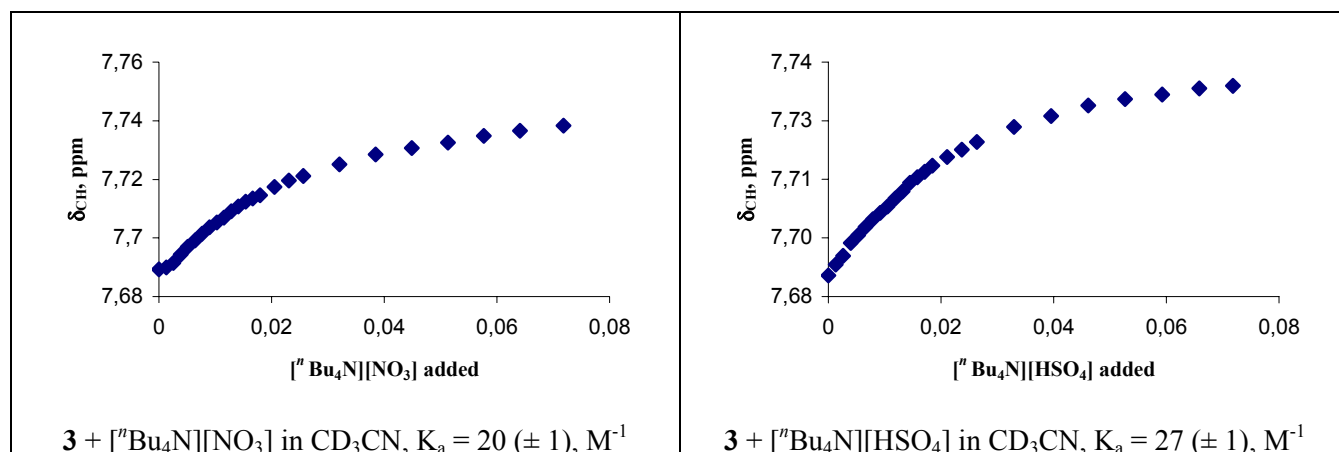
$^1\text{H}$  NMR titration profiles of compound  $[\text{Re}(\text{CO})_3(\text{HMeIm})_3]\text{PF}_6$  (2) in  $\text{CD}_2\text{Cl}_2$



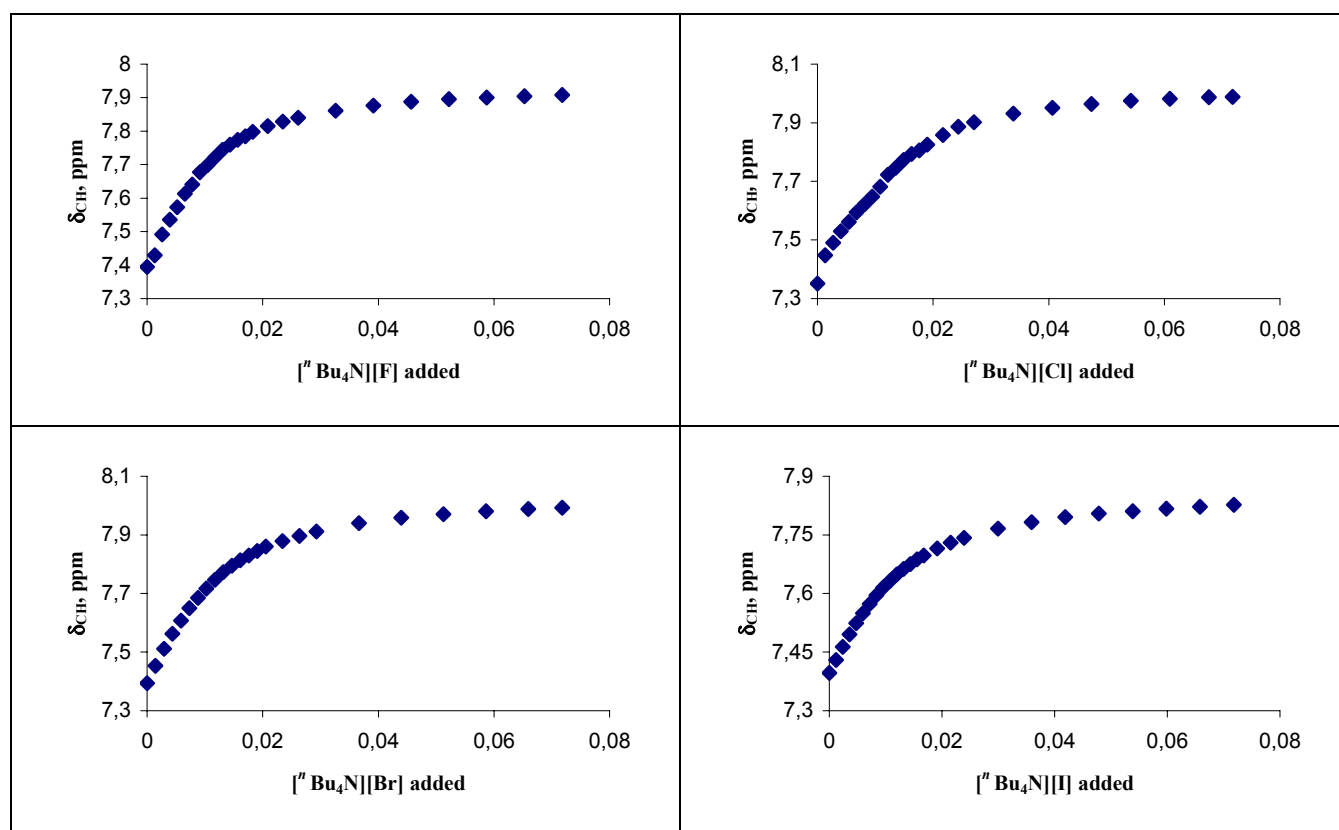


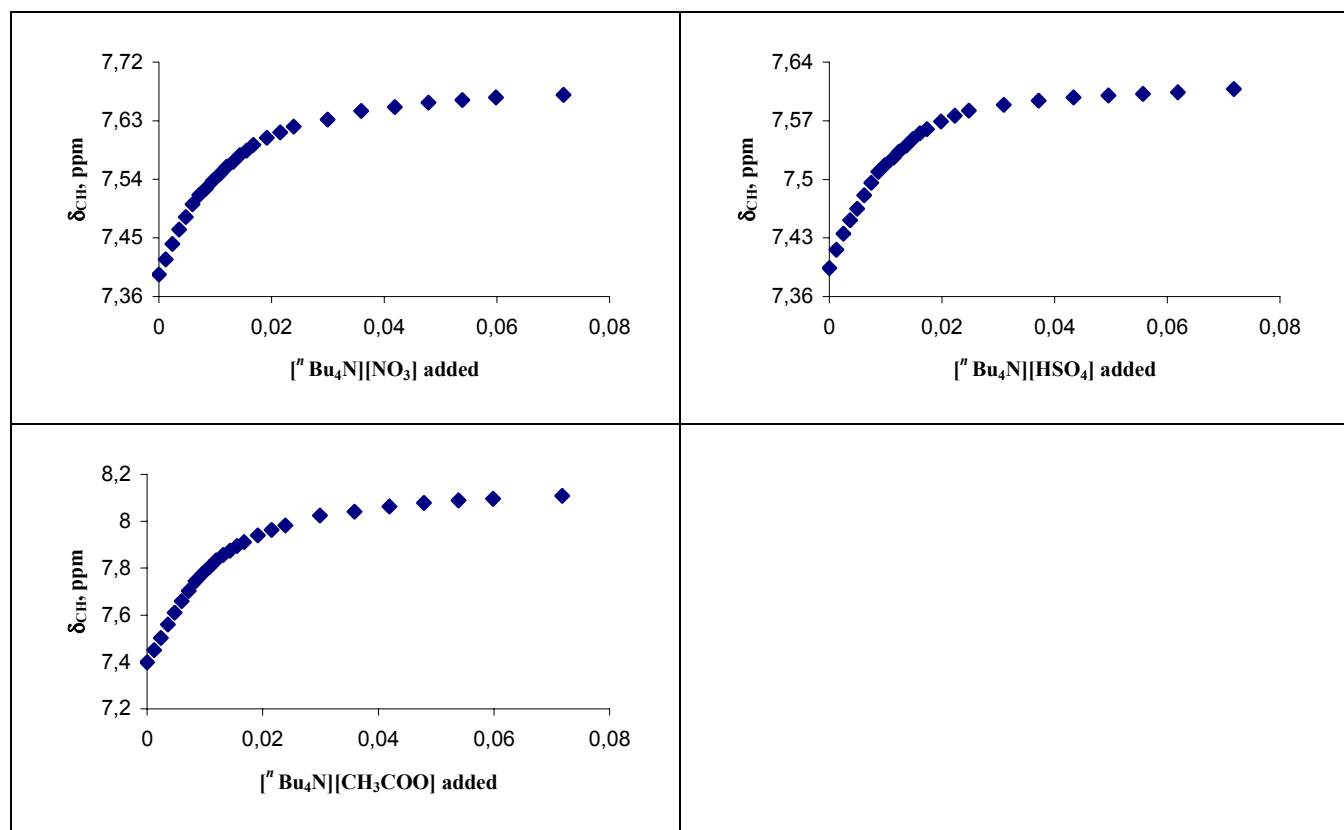
**<sup>1</sup>H NMR titration profiles of compound [Re(CO)<sub>3</sub>(HMeIm)<sub>3</sub>]BPh<sub>4</sub> (3) in CD<sub>3</sub>CN**



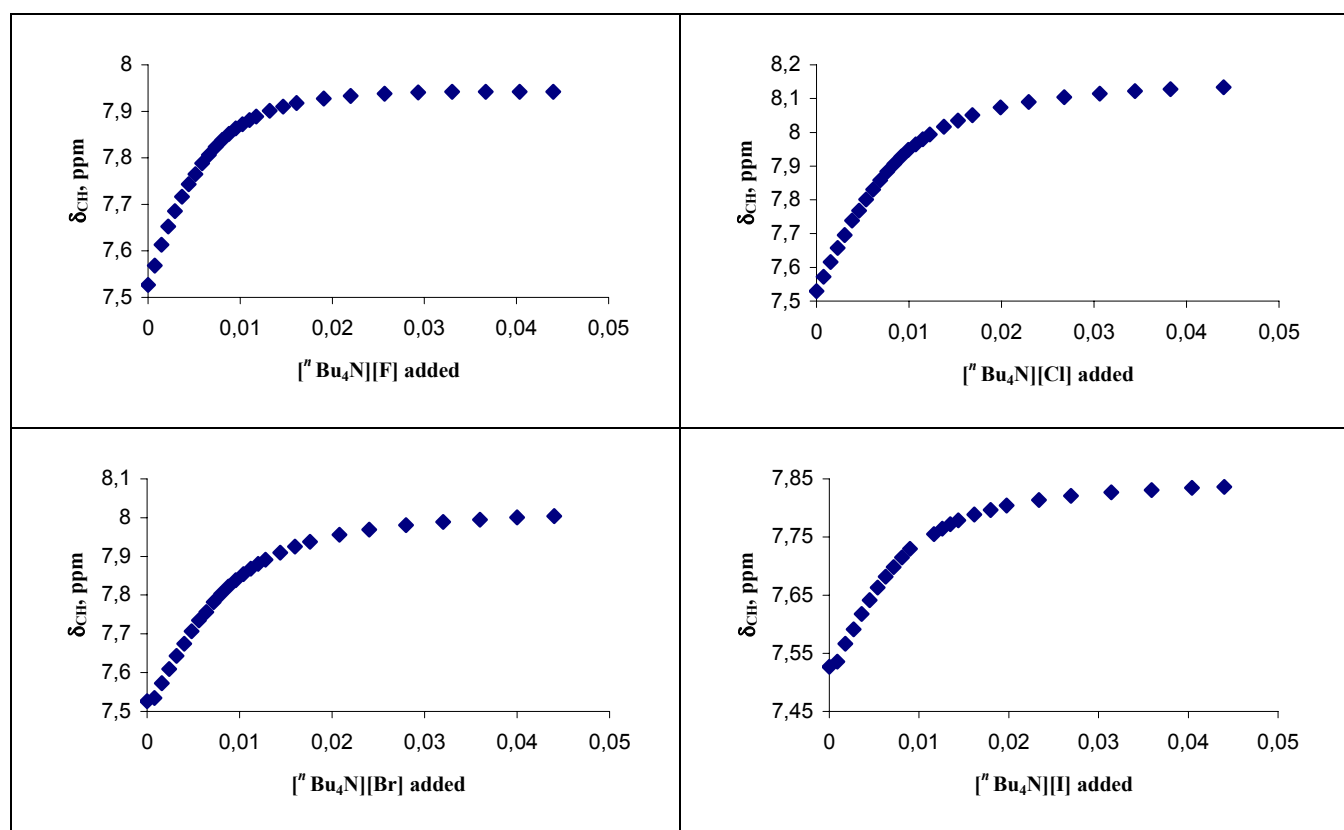


**<sup>1</sup>H NMR titration profiles of compound [Re(CO)<sub>3</sub>(HMeIm)<sub>3</sub>]BPh<sub>4</sub> (3) in CD<sub>2</sub>Cl<sub>2</sub>**

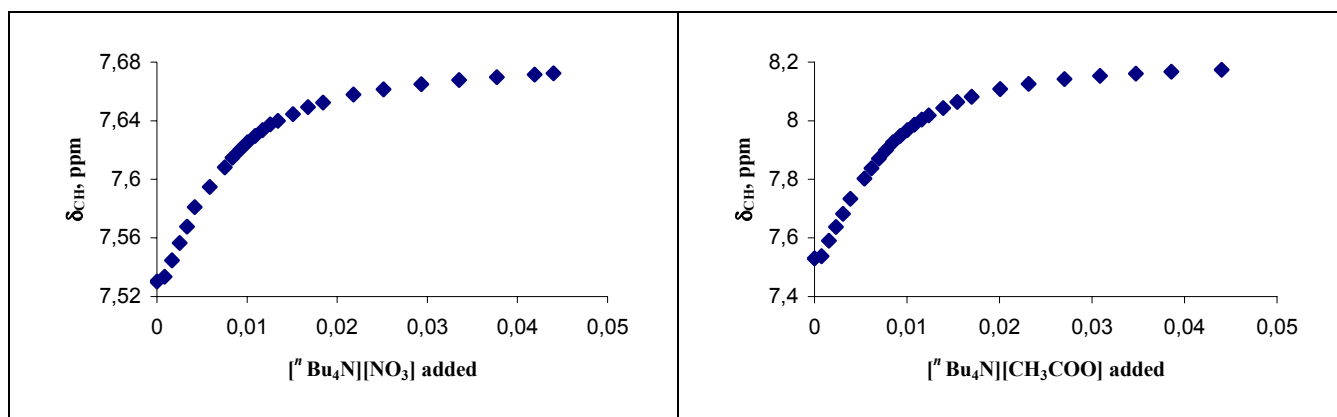




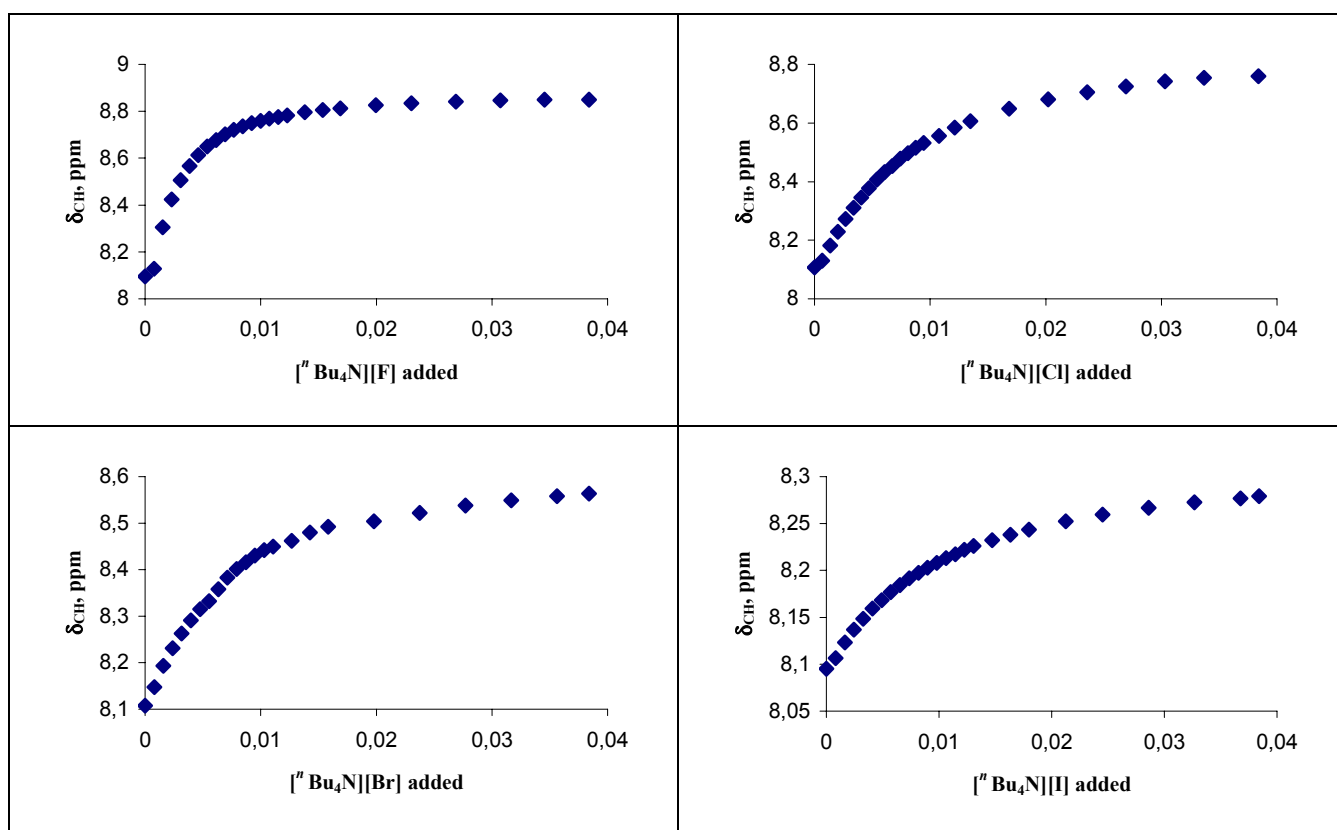
$^1\text{H}$  NMR titration profiles of compound  $[\text{Re}(\text{CO})_3(\text{HMeIm})_3]\text{BAR}'_4$  (4) in  $\text{CD}_2\text{Cl}_2$

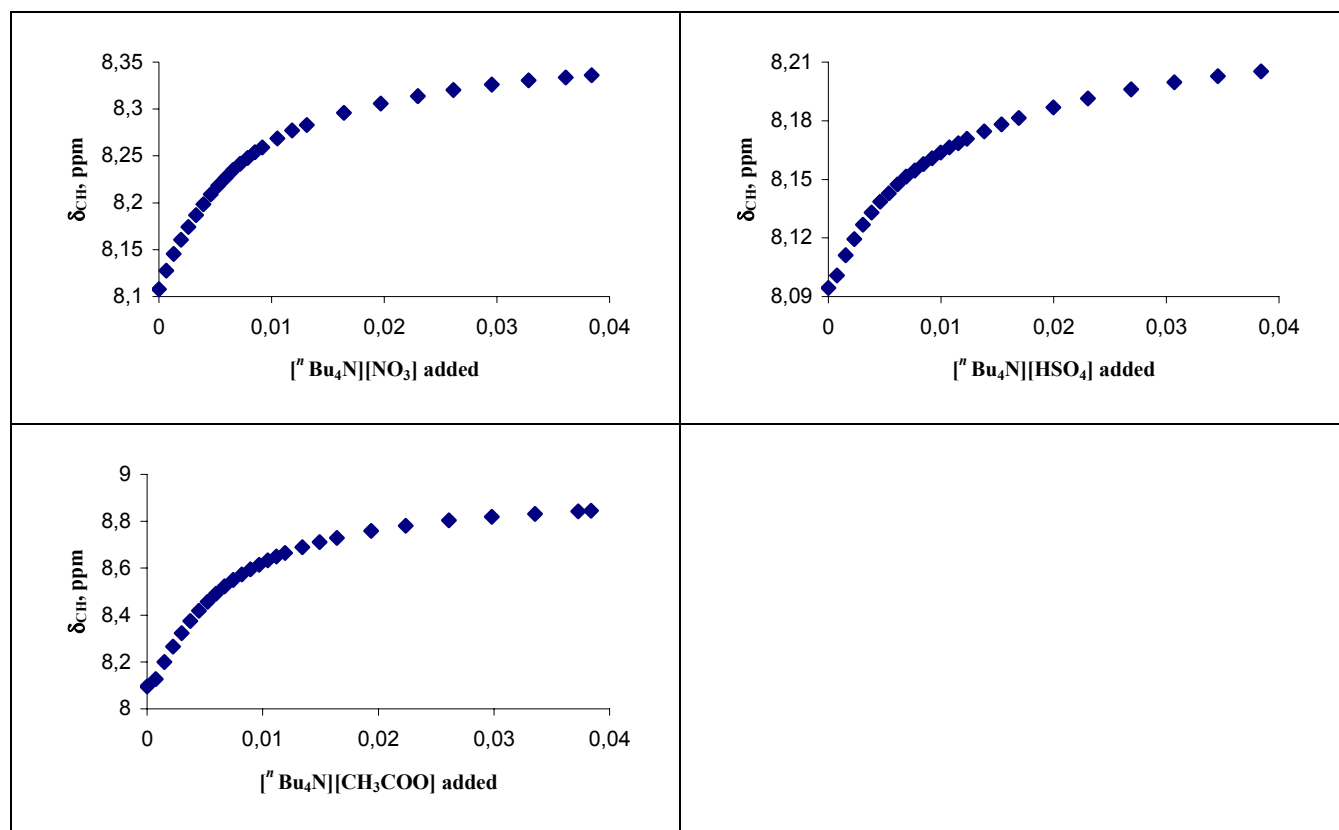




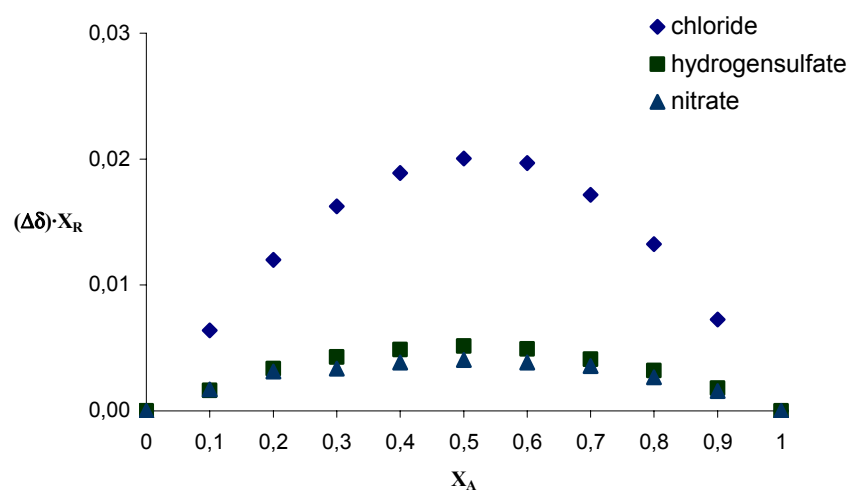


$^1\text{H}$  NMR titration profiles of compound  $[\text{Re}(\text{CO})_3(\text{PhIm})_3]\text{BAR}'_4$  (7) in  $\text{CD}_2\text{Cl}_2$





**Job plot of receptor 3 toward chloride, hydrogensulfate and nitrate anions in  $\text{CD}_3\text{CN}$ .**



**Job plot of receptor 7 toward chloride, hydrogensulfate and nitrate anions in CD<sub>3</sub>CN.**

