

Supporting Information

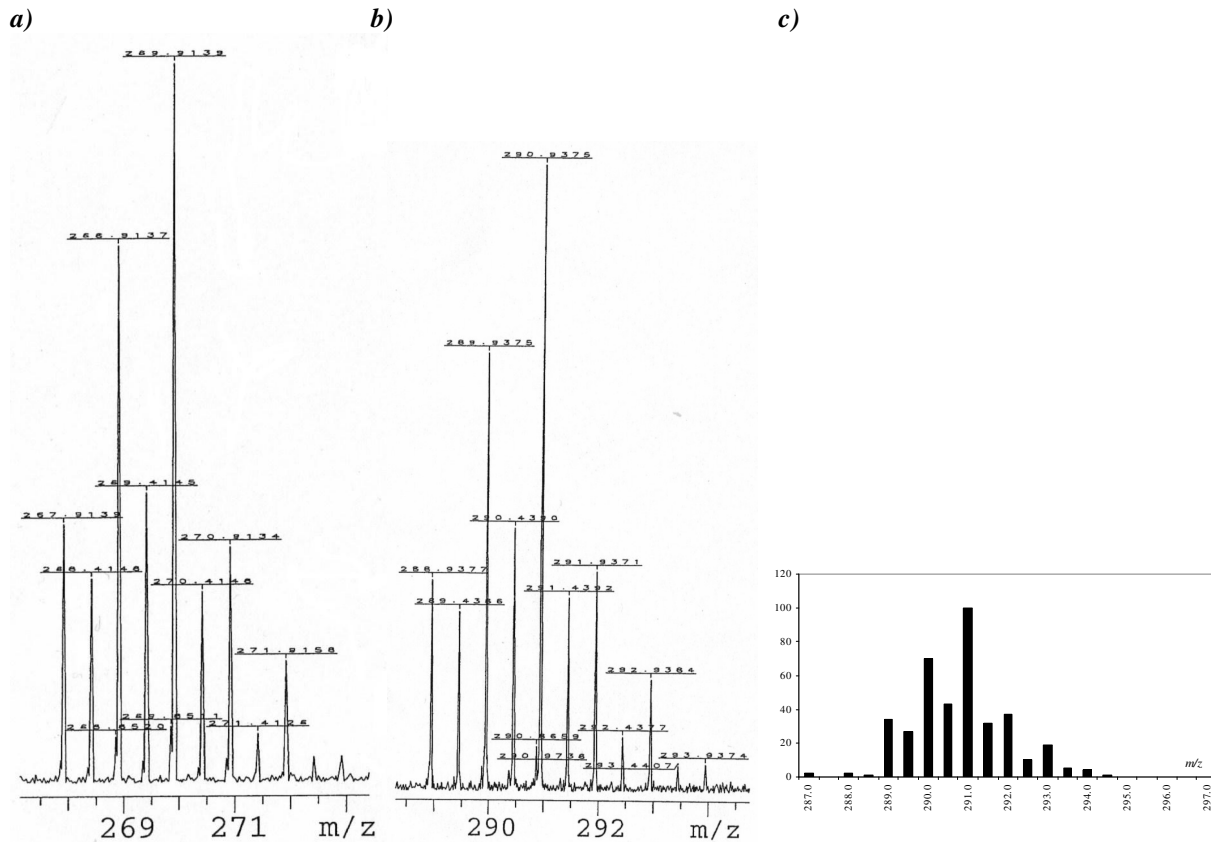


Fig. S1 Negative-ion Mass Spectrum of **a)** **2** and **b)** **3**, showing the dianion envelope, and **c)** the calculated spectrum for **3**.

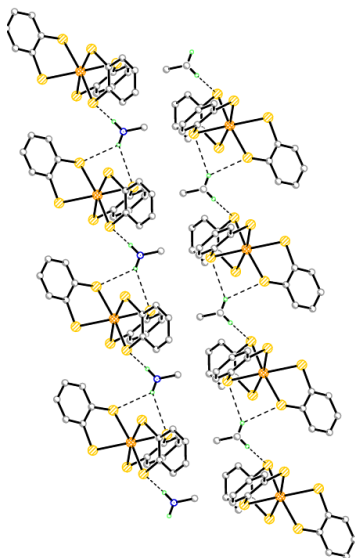


Fig. S2 Packing of ions in the lattice of **3**. Range S...H 2.52-2.82 Å.

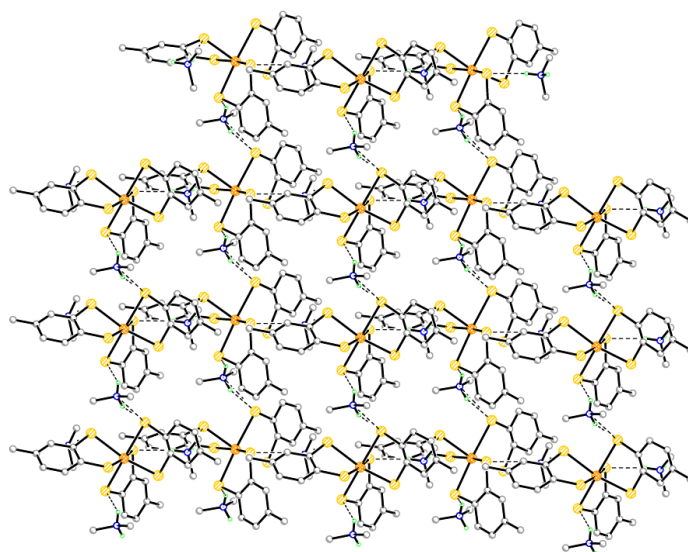


Fig. S3 Packing of ions in the lattice of **3**. Range $S \cdots H$ 2.24-2.47Å.