

Incorporation of Anions Inside a Molecular Square

Gregory J. Grant, Department of Chemistry
The University of Tennessee at Chattanooga

The ability to recognize anions has important applications in diverse fields such as medicine, materials chemistry, and environmental science. Our group has reported the crystal structure of a molecular square which incorporates platinum(II) thiocrown complexes as its vertices. Importantly, half of the anions(triflate anions) present in the complex are incorporated inside the molecular square and fill it as shown below. This is unusual behavior in molecular square coordination chemistry in that the anions are usually found outside the square cavity. NMR measurement suggest that the anions migrate out of the cavity in solution.

