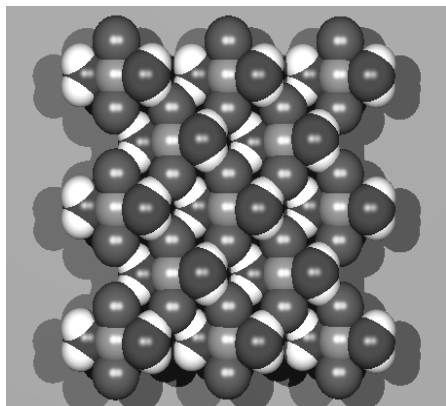


RCMS & Global COE Seminar

Controlling Structure, Electron Spin and Transport Through Hydrogen Bonds



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B-116 (化学科第 3 講義室)

Although hydrogen bonds are relatively weak, they play an important role as structure directing entities for the solid state assembly of molecular components. This is especially true for cation radical salts and coordination polymers. We are interested in controlling and coupling electron spin and transport in hybrid cation radical salts that contain conductive and magnetic moieties. We have chosen to study fluorinated molecular building blocks because of their ability to form strong hydrogen bonds. Our research has led to the discovery of a new class of magnetic bifluoride coordination polymers. We have also discovered a novel deuterium isotope effect in the $\text{CuF}_2(\text{H}_2\text{O})(\text{pyrazine})$ coordination polymer. Our progress in incorporating fluorinated coordination polymers into cation radical salts will be discussed.

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