**Photoswitchable iron(III) spin crossover materials**

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Spin crossover (SCO) complexes can act as simple molecular magnetic switches and have the advantage of being switchable by multiple stimuli. A key aim in this area is to design molecules which switch reliably close to room temperature and with magnetic hysteresis. Our work has focused on iron(III) SCO compounds as they are generally more robust. However, photoswitchable iron(III) SCO compounds are much rarer than those of iron(II) due to the smaller change in iron-ligand bond lengths. In this talk we present several strategies in overcoming this disadvantage in iron(III) SCO materials.

Diagram

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*Figure 1.* *Overview of molecular switching in iron(III) SCO materials*.

**Keywords:** spin crossover; photoswitchable; iron(III); magnetic hysteresis

**References**

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