

SEKTIONEN FOR UORGANISK KEMI  
KEMISK FORENING  
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DK-2100 København Ø

## **SUK-MØDE**

Mandag den 29. maj 2006, kl. 17.30 i auditorium 8, H.C.Ørsted Institutet

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taler om

**Synthesis of Molecular Minerals,  
High Spin Molecules and Single-Molecule Magnets**

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# Synthesis of Molecular Minerals, High Spin Molecules and Single-Molecule Magnets.

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The synthesis and characterisation of polynuclear clusters of paramagnetic metal ions has attracted intense study since the discovery that such molecules can display the phenomenon of single-molecule magnetism. Single-Molecule Magnets (SMMs) have many potential applications including high density information storage in which each bit of information is stored as the magnetisation orientation of an individual molecule, and as qubits for quantum computation where the required arbitrary superposition of quantum states with opposite projections of spin are produced by either quantum tunneling of the magnetization (QTM), inter-molecular exchange, or multi-frequency EPR pulses. Here, we discuss our methods of synthesising such molecules.

