

## Reversible control of magnetism: On the conversion of hydrated $\text{FeF}_3$ with Li to Fe and $\text{LiF}$

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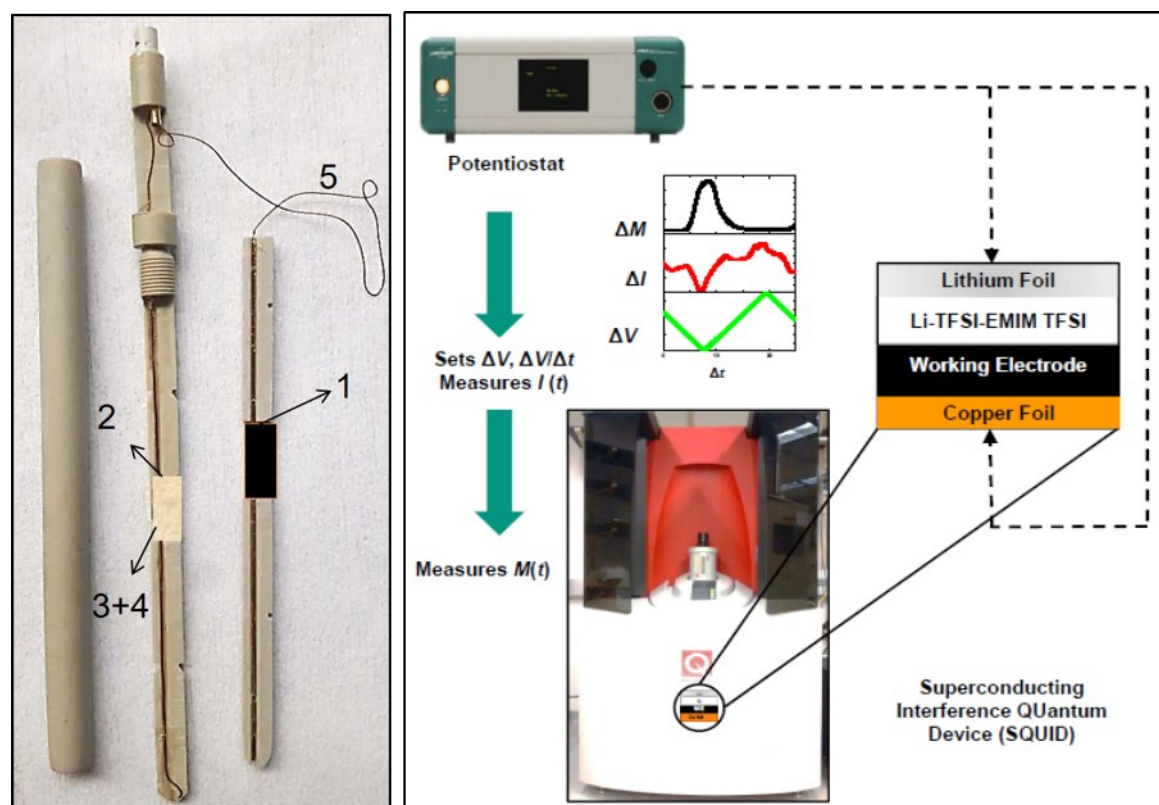


Figure S1: Electrochemical tuning cell and measurement setup

1: Working electrode

2: Counter electrode

3+4: Separator soaked with electrolyte

5: Connection to Potentiostat

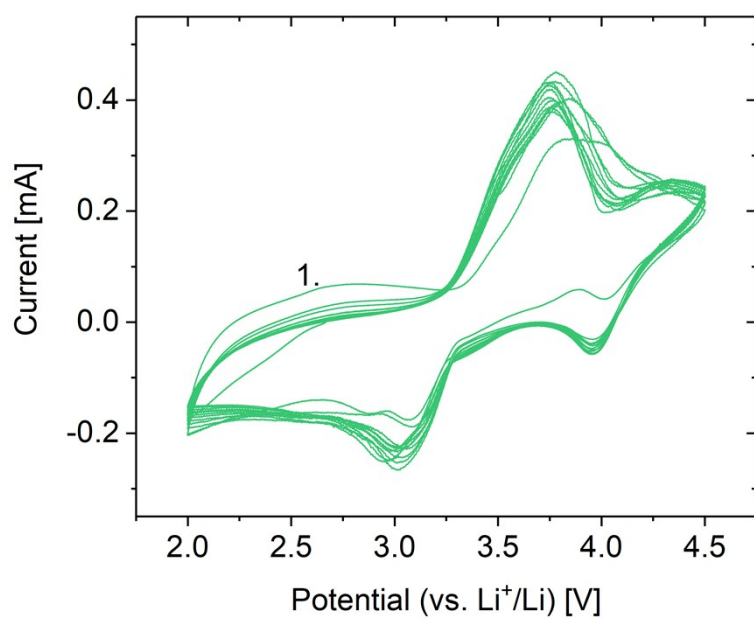


Figure S2: Cyclic voltammograms of the first 13 cycles.

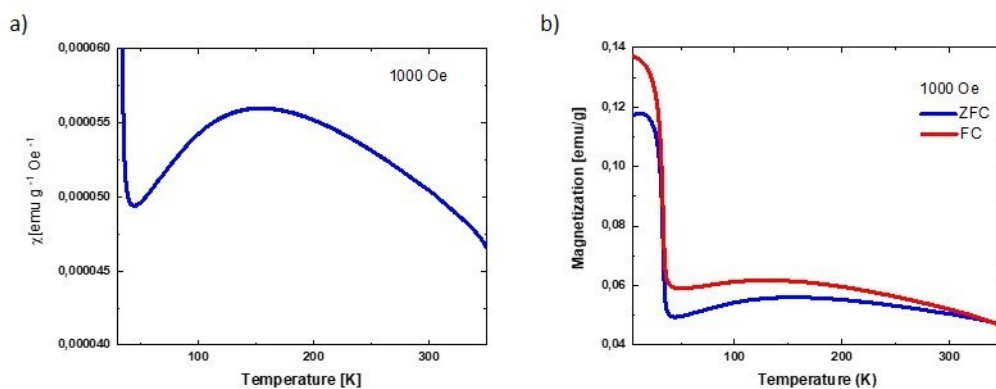


Figure S3: a) Zero-field-cooled magnetic susceptibility of  $\text{FeF}_3 \cdot 3\text{H}_2\text{O}$  as function of temperature measured with an applied magnetic field of 1000 Oe. b) Zero-field-cooled and field-cooled curve with an applied magnetic field of 1000 Oe.