

## Synthesis of $[\text{Ru}(\text{dmsO})_4\text{Cl}_2]$

1. Flush 25 ml of dried DMSO until it is free of Oxygene (flushing period ~10 min)
2. Add 3 g  $\text{RuCl}_3 \cdot x\text{H}_2\text{O}$
3. The dark red to black suspension is heated up to 170 °C under a continuous Ar flow
4. The solution is kept at this temperature for 10 – 15 min until it becomes yellow-orange
5. The solution is slowly cooled down to RT and poured into 40 ml dried Aceton.
6. The yellow  $\mu$ -crystalline product is filtered off after it has been precipitated and then dried in air.

M = 484.50 g/mol

## FT-IR spectrum of $[\text{Ru}(\text{dmsO})_4\text{Cl}_2]$

