# **Dry Solvent**

Method to eliminate water residues from solvents. A dry solvent is needed if the water residues could interfere with the reaction. The possible residues of water are removed by adding a drying agent. A drying agent is usually a hydrophilic salt, that binds the water in a reaction without interacting with the solvent.

$$CaH_2 + 2 H_2O \rightarrow Ca(OH)_2 + 2 H_2$$

#### Materials

Solvent: Ethylenglycoldimethylether

Drying Agent: CaH,

### Procedure

First the Ethylenglycoldimethylether is tested for peroxides with potassoiumiodid. If necessary the peroxides are removed. Afterwards the CaH<sub>2</sub> is added. The reaction is stirred for 12 hours at room temperature. Afterwards the dried solvent is purified via distillation.

## Trouble shooting

During the reaction with CaH<sub>2</sub> the gas H<sub>2</sub> is released. To prevent internal pressure and to avoid recontamination with water due to air humidity, a drying tube is used as lid.

#### References

https://tu-dresden.de/mn/chemie/oc/oc2/ressourcen/dateien/moduloc2/versuchsvorschriften/Trocknung\_pdf?lang=de, 14.08.2018