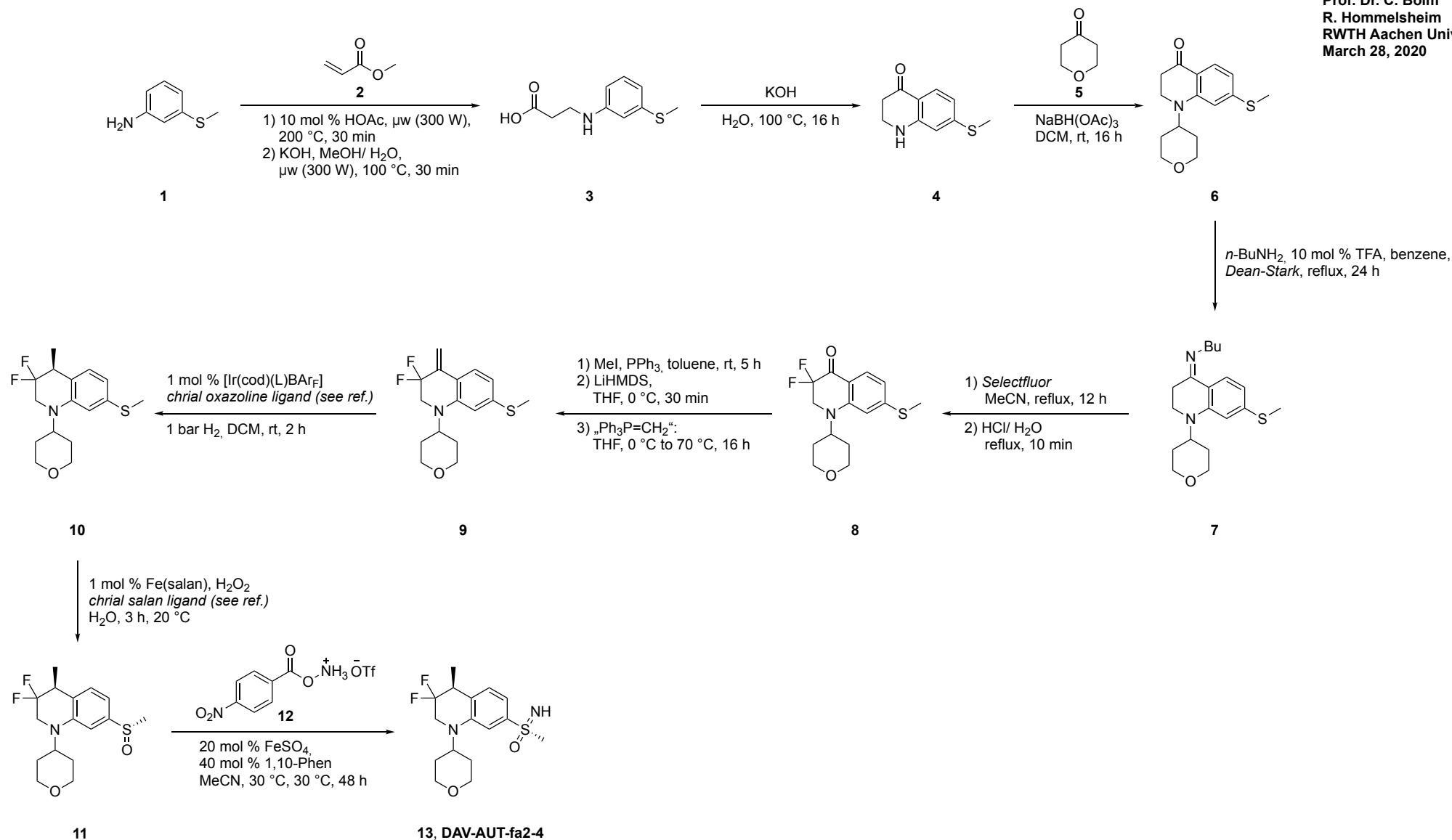


Compounds **1**, **2** and **5** are commercially available.

Prof. Dr. C. Bolm
R. Hommelsheim
RWTH Aachen University
March 28, 2020



step 1: *Tetrahedron Lett.* **2006**, 47, 8583-8586; **step 2:** *PCT Int. Appl.* WO 9749709; **step 3:** *PCT* WO 2008092831; **step 4:** *Synthesis* **2005**, 3140-3146; *Angew. Chem. Int. Ed.* **2010**, 49, 1123-1127; *Angew. Chem.* **2010**, 122, 1141-1145; **step 5:** *Synthesis* **2005**, 3140-3146; *Angew. Chem. Int. Ed.* **2010**, 49, 1123-1127; *Angew. Chem.* **2010**, 122, 1141-1145; **step 6:** *Angew. Chem. Int. Ed.* **2010**, 49, 1123-1127; *Angew. Chem.* **2010**, 122, 1141-1145; **step 7:** for an example see: *J. Am. Chem. Soc.* **2009**, 131, 12344-12353. **To receive the correct enantiomer in high ee values screening of the ligand and reaction conditions is necessary.** Please see: *Ind. Eng. Chem. Res.* **2012**, 51, 126-132; **step 8:** *J. Am. Chem. Soc.* **2007**, 129, 8940-8941; **step 9:** *Angew. Chem. Int. Ed.* **2018**, 57, 324-327; *Angew. Chem.* **2018**, 130, 330-333.