O₁₄

A NEW SYNTHESIS OF TRIFLUOROMETHANESULFONIC ACID

Marc Tordeux* and Claude Wakselman CNRS-CERCOA 2, rue Henri Dunant, 94320 Thiais (France)

A chemical synthesis of triflic acid is described. A suspension of a metal (Zn, Al, Mn or Cd) in DMF is placed under vacuum. Successive introduction of SO_2 and CF_3Br under slight pressure leads to the formation of a trifluoromethylsulfinate which is isolated as sodium salt. Oxidation by hydrogen peroxide followed by hydrolysis gives trifluoromethanesulfonic acid monohydrate.

The mechanism of formation of the trifluoromethylsulfinate is discusse