8th Biennial International
Conference on Organic Synthesis

Balticum Organicum Syntheticum
July 6-9, 2014, Vilnius

Program and Abstract Book

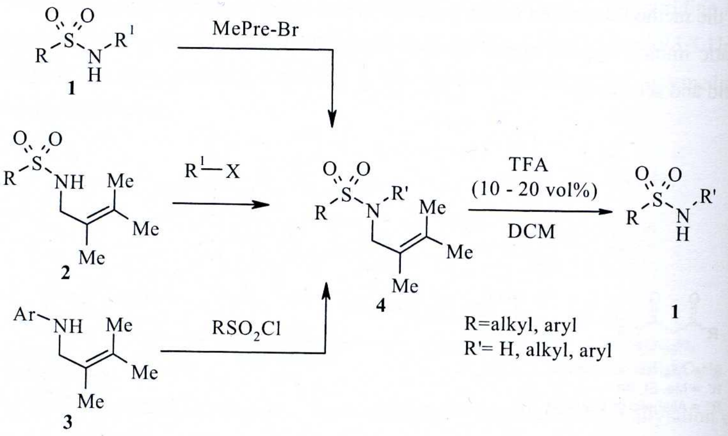
ACID-LABILE METHYLPRENYL PROTECTION FOR SULFONAMID

A. Nikitjuka, A. Nekrasova, A. Jirgensons

Latvian Institute of Organic Synthesis
E-mail: anna@osi.lv

Sulfonamide group may often require protection during the synthesis of complex compou due to relative acidity and nucleophilicity in deprotonated form. The few known protec groups for sulfonamides (*t*-Bu, Bn, DPM, DMB or MP) suffer from the limited ways of ins lation and side-product formation during deprotection step. In our poster, we report acid-la methylprenyl group as sulfonamide protection.

The installation of methylprenyl group can be realized through *N*-alkylation of sulfonamid with methylprenyl bromide, *N*-alkylation or arylation of *N*-methylprenyl sulfonamides 2 sulfonylation of methylprenyl anilines **3**[1].



Cleavage of methylprenyl group in protected sulfonamides **4** proceeds efficiently in the pre ence of TFA solution in DCM. In most cases the additional purification was not required ar the yield of sulfonamide **1** was excellent. Methylprenyl group is stable to catalytic hydrogen tion conditions at 1 atm H_2 pressure, as well as in presence of base, DDQ, NIS and LAH.

References:

1. Lober O.; Kawatsura M.; Hartwig J. F. *J. Am. Chem. Soc.* **2001**, 123, 4366.