

# 3RD EUROPEAN CHEMISTRY CONFERENCE

October 12, 2020 | Virtual Conference

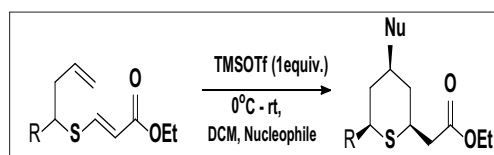
## An Efficient Metal Free Methodology for the Synthesis of 2,4,6-Tetrahydrothiopyranderivatives via Intramolecular Lewis Acid Mediated Cyclization of Thioenol Ethers

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Tetrahydrothiopyrans and its derivatives are important structural moiety of many bioactive naturally occurring molecules. They are found in many petroleum products and also play a key role in the biological activities of a number of pharmaceutical agents. Synthesis of these tetrahydrothiopyran moieties have always been an exciting challenge for the synthetic organic chemists. Hence an efficient, metal free, methodology for the diastereo selective synthesis of tetrahydrothiopyrans using Prins enol-ether cyclization reaction from enol ethers mediated by trimethylsilyltrifluoromethanesulfonate (TMSOTf) in good yields under mild reaction conditions has being developed.



The reaction with TMSOTf in Toulene/ $\text{CH}_2\text{Cl}_2$  (1:1) solvent system produced 2,4,6-trisubstituted tetrahydrothiopyrans in 75% yield with dr 88:12. The structure of the compounds were confirmed by  $^1\text{H}$ ,  $^{13}\text{C}$  NMR, IR and mass spectrometry. The diastereomeric ratio was determined from the  $^1\text{H}$  NMR of crude reaction mixture. The reaction was also screened with various Lewis and Brønsted acids with an aim to synthesize tetrahydrothiopyran ring system.

### Biography:

Manash Jyoti Deka has completed his PhD at the age of 30 years from IIT Guwahati. He has published more than 10 papers in reputed journals. He is currently working as an Assistant Professor in the Department of Chemistry, Assam Don Bosco University.