

Gold(I)-Catalyzed Stereoselective Synthesis of Deoxyglycosides

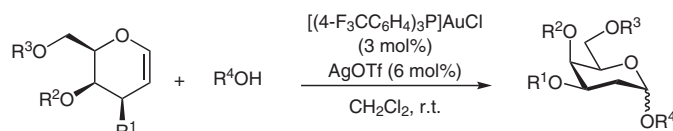
Category

Metal-Catalyzed
Asymmetric
Synthesis and
Stereoselective
Reactions

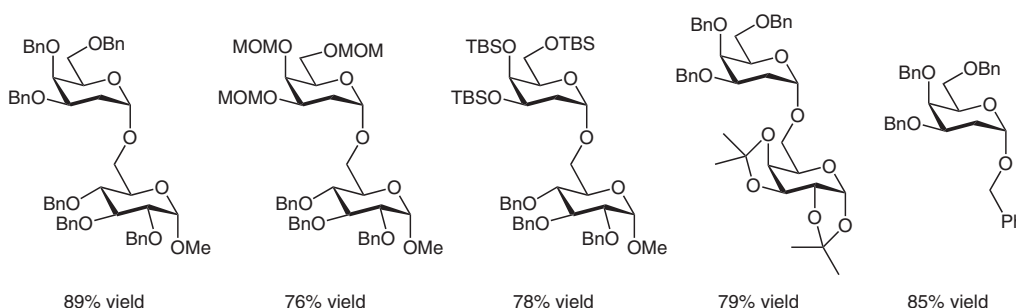
Key words

gold catalysis
deoxyglycosides
glycals
alkoxylation

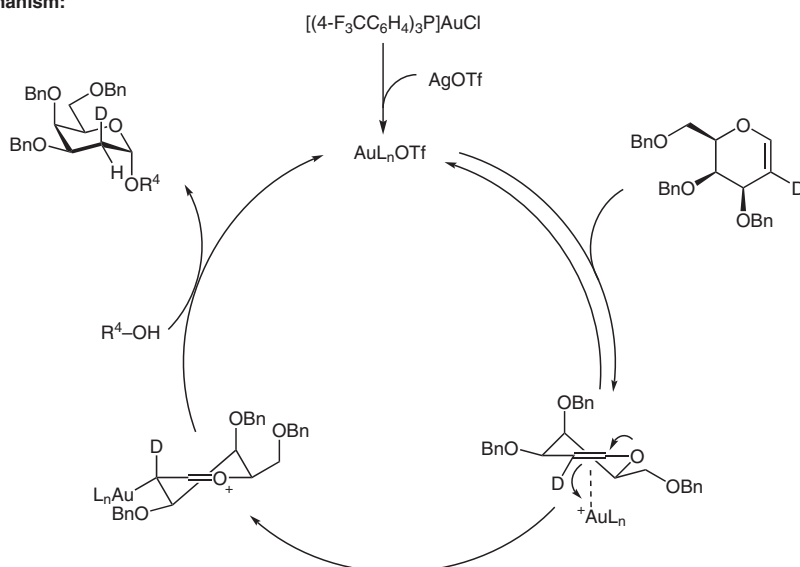
Synfact
of the month



Selected examples:



Proposed mechanism:



Significance: Deoxyhexose structures can be found in a wide range of natural products. The authors have developed an α -stereoselective catalytic synthesis of deoxyglycosides from glycals by using Au(I)/AgOTf.

Comment: The reaction can be applied to a broad range of glycals and alcohols to give α -deoxyglycosides in high yields and with excellent selectivity. The utility of the reaction was demonstrated by the synthesis of oligosaccharides through the coupling reaction followed by deprotection.