

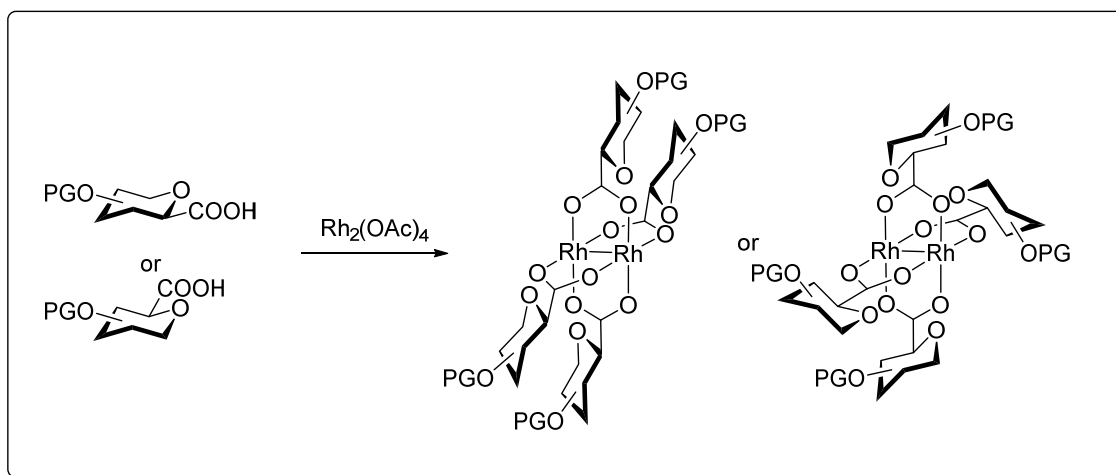
CARBOHYDRATE DERIVED LIGANDS FOR CATALYTIC STEREOSELECTIVE CARBENOID CYCLOPROPANATION REACTIONS

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Metal-catalyzed stereo selective cyclopropanation plays an important role in organic synthesis.[1] Stereoselective introduction of a cyclopropane unit to an intermediate together with a vast number of ring-opening possibilities lead to an important tool in precursor synthesis.[2,3]

It has already been shown that carbohydrate derived bis(oxazoline) ligands can catalyze copper carbenoid cyclopropanations in good enantiomeric excess.[4] Metal-catalyzed cyclopropanation has its origin in a copper catalyzed reaction. Nevertheless, a modern approach to enantioselective cyclopropanation employs binuclear rhodium(II)tetracarboxylate complexes.[5,6]



In this work, we present the synthesis of new carbohydrate derived rhodium carboxylate complexes as well as their application in enantioselective carbenoid cyclopropanation catalysis.

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