Stereoselective Syntheses of Substituted *tert*-Butyl 3-Allyl-4-hydroxypiperidine-1-carboxylate

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Abstract—*tert*-Butyl 3-allyl-4-oxopiperidine-1-carboxylate and its derivatives substituted at the 3-position and in the allylic fragment reacted with L-selectride in anhydrous tetrahydrofuran to give *tert*-butyl (3*R*,4*S*)-3-allyl-4-hydroxypiperidine-1-carboxylates (*cis* isomers) in quantitative yield. The Mitsunobu reaction of the latter with formic or benzoic acid, followed by alkaline hydrolysis, afforded the corresponding *trans* (3*R*,4*R*) isomers.

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