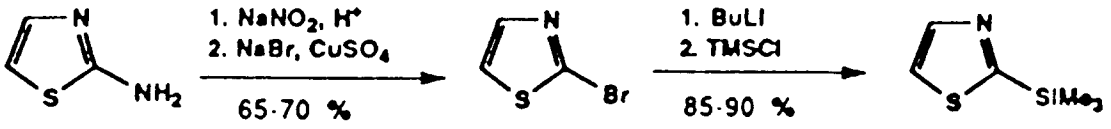
Preparation of 2-(Trimethylsilyl)thiazole (2-TST)

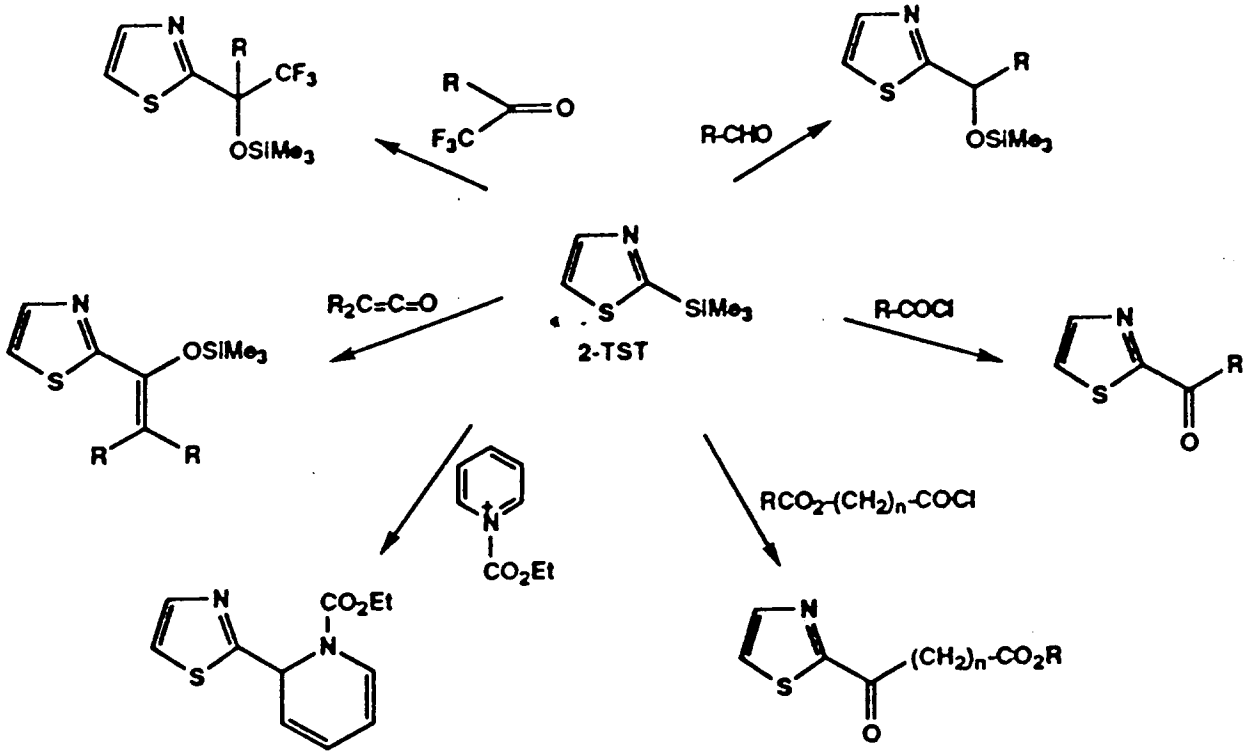


100 g : 7.5-9.5 US $

2-TST
(bp 73-75 °C at 15 mm)

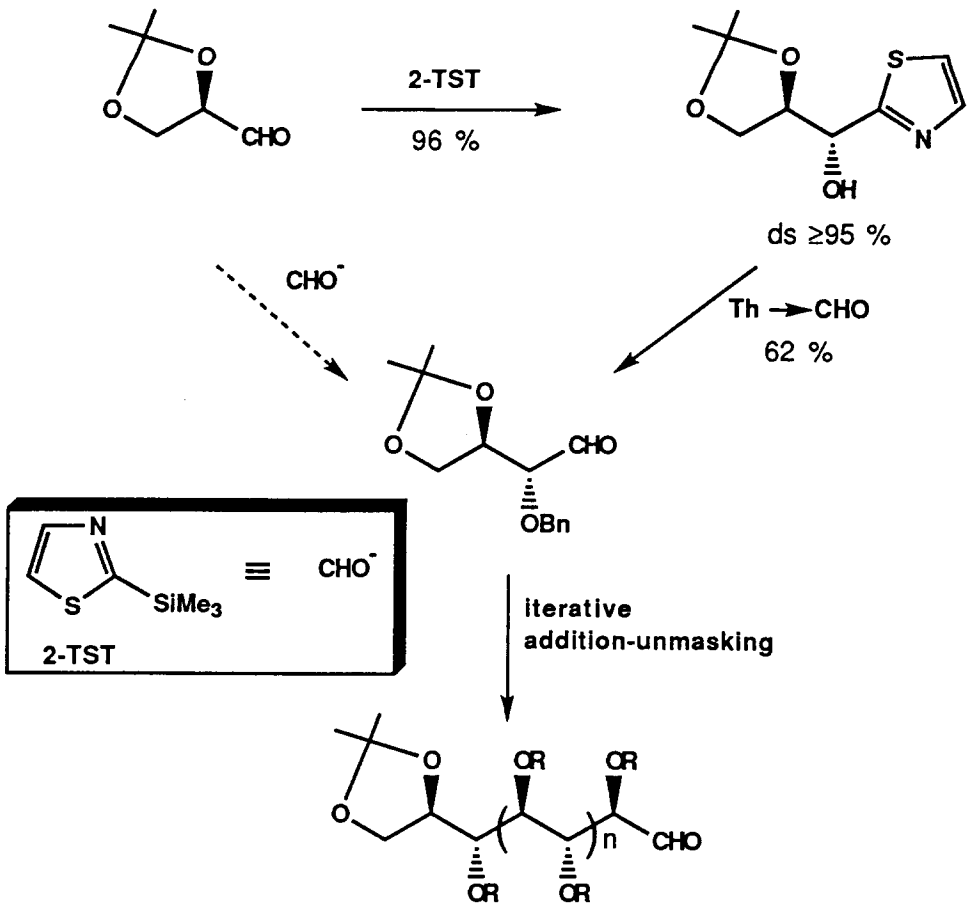
J. C. S., Chem. Commun. 1981, 655
Org. Synth. 1993, 72, 21

Reactivity of 2-(Trimethylsilyl)thiazole



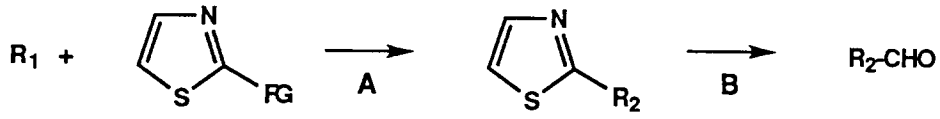
J. Chem. Soc., Chem. Commun. 1981, 655
J. Org. Chem. 1988, 53, 1748
Synthesis, 1994 (in press)

2-TST as a Formyl Anion Equivalent



Angew. Chem. Int. Ed. Engl. **1986**, 25, 835
J. Org. Chem. **1989**, 54, 693

THE THIAZOLE-ALDEHYDE SYNTHESIS

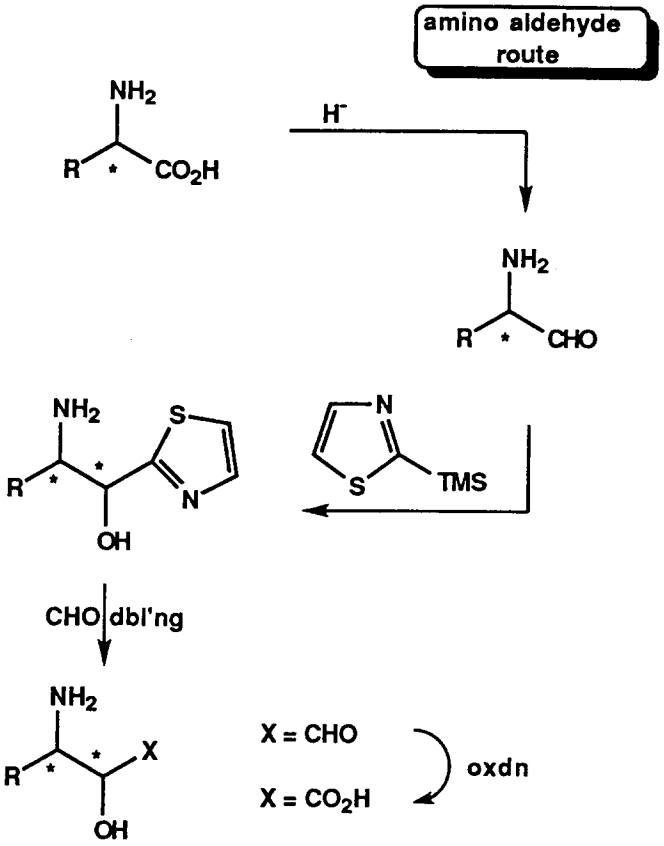


FG = Met (Li, $SiMe_3$, $AlEt_2$, MgBr)
FG = $CH{=}PPh_3$
FG = $COCH_3$
FG = $COCH{=}PPh_3$
FG = CHO
FG = CNO
FG = CH_2SO_2Ph
FG = $CH_2N{=}R^*$

A : functionalization (C-C bond forming reaction)
B : CHO-unmasking [one pot : a) MeI or CF_3SO_3Me; b) $NaBH_4$; c) Hg^{++} or Cu^{++}/H_2O]

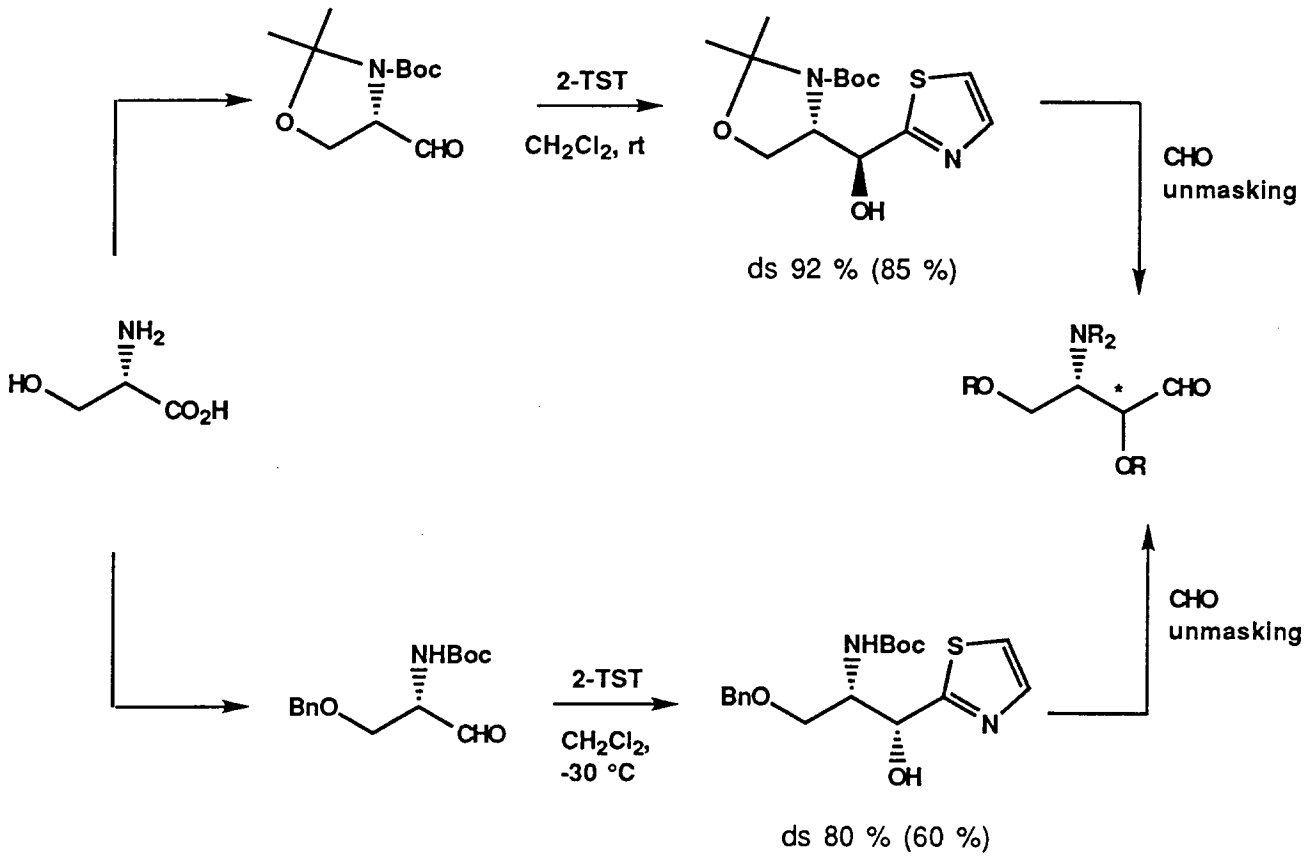
Review : A. Dondoni, In 'Modern Synthetic Methods,' R. Scheffold, Ed. ,Verlag Helvetica Chimica Acta, Basel, **1992**, p. 379.

Thiazole-based Route to β-Amino-α-Hydroxy Acids from α-Amino Acids



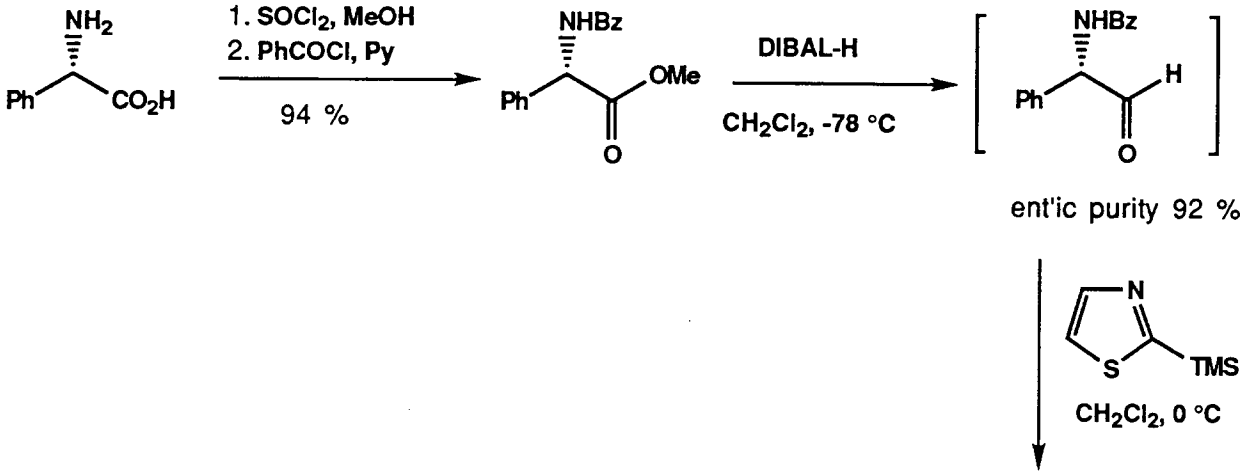
Addition of 2-TST to α-Amino Aldehydes

Tunable Diastereoselectivity by *N*-Protecting Groups



J. C. S. Chem. Commun **1988**, 10
J. Org. Chem. **1990**, 55, 1439

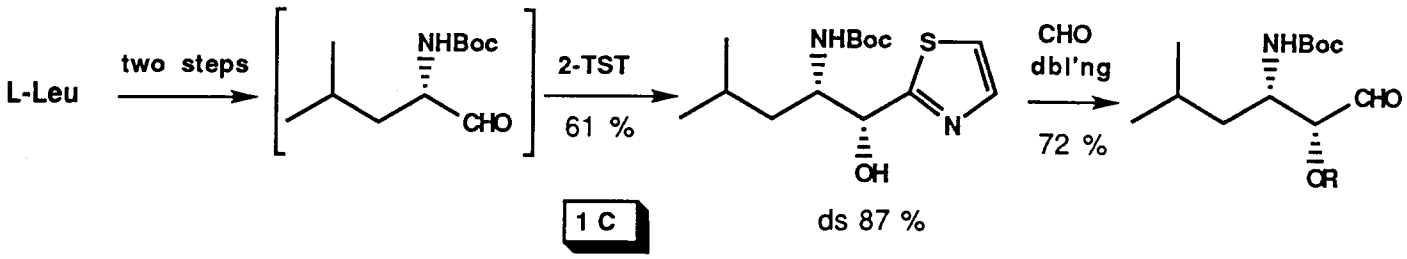
THE THIAZOLE ROUTE TO TAXOL SIDE CHAIN FROM L-PHENYLGLYCINE



same strategy for the *N*-Boc derivative (35 % overall yield)

Synthesis of Hydroxyethylene Leu-Gly and Leu-Leu Isosteres from L-Leucine

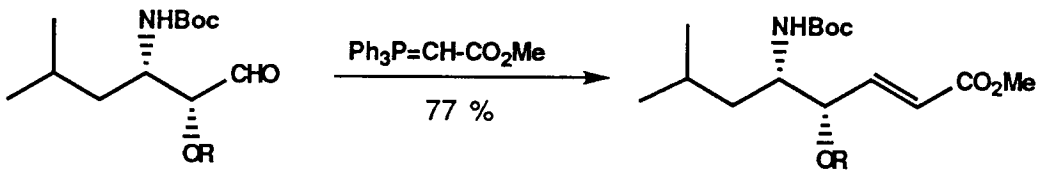
A. One- and Two-carbon Chain Elongation



1 C

ds 87 %

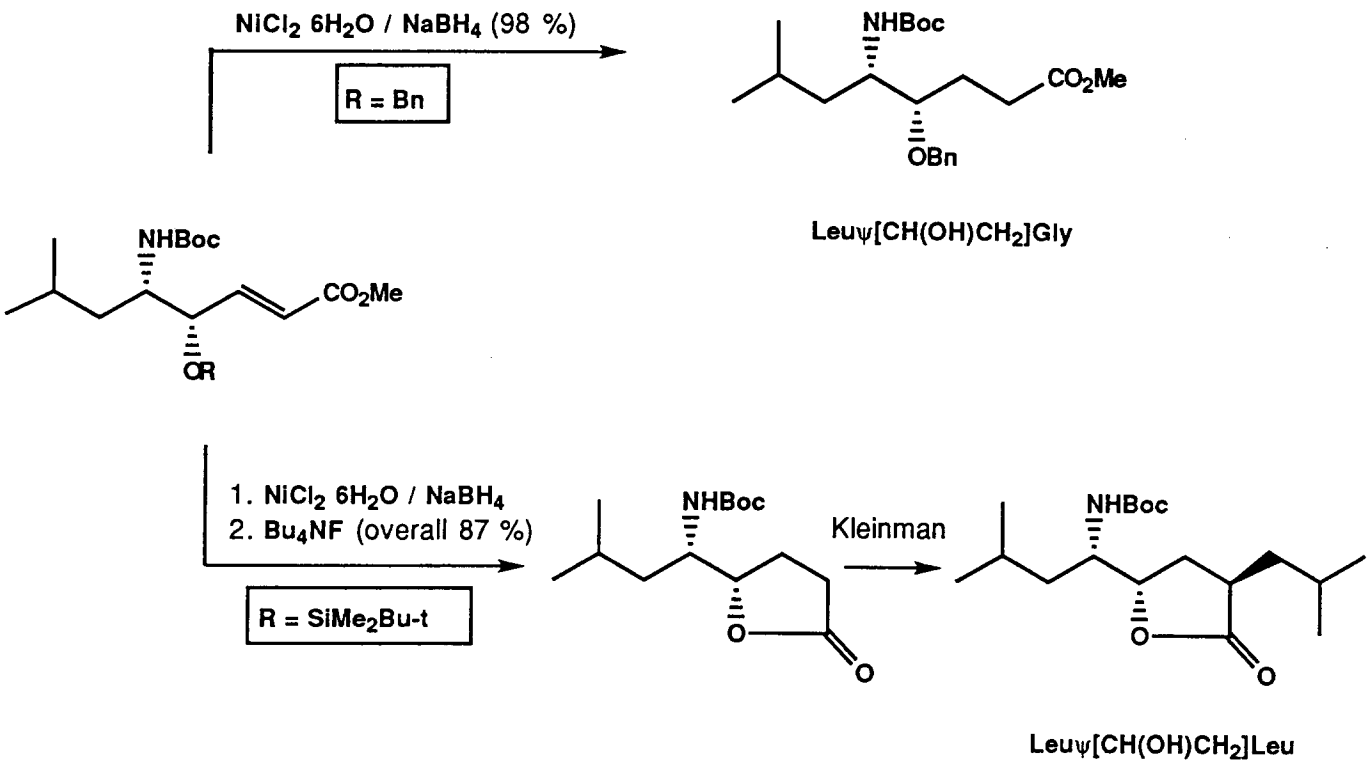
R = Bn, $SiMe_2Bu$-t



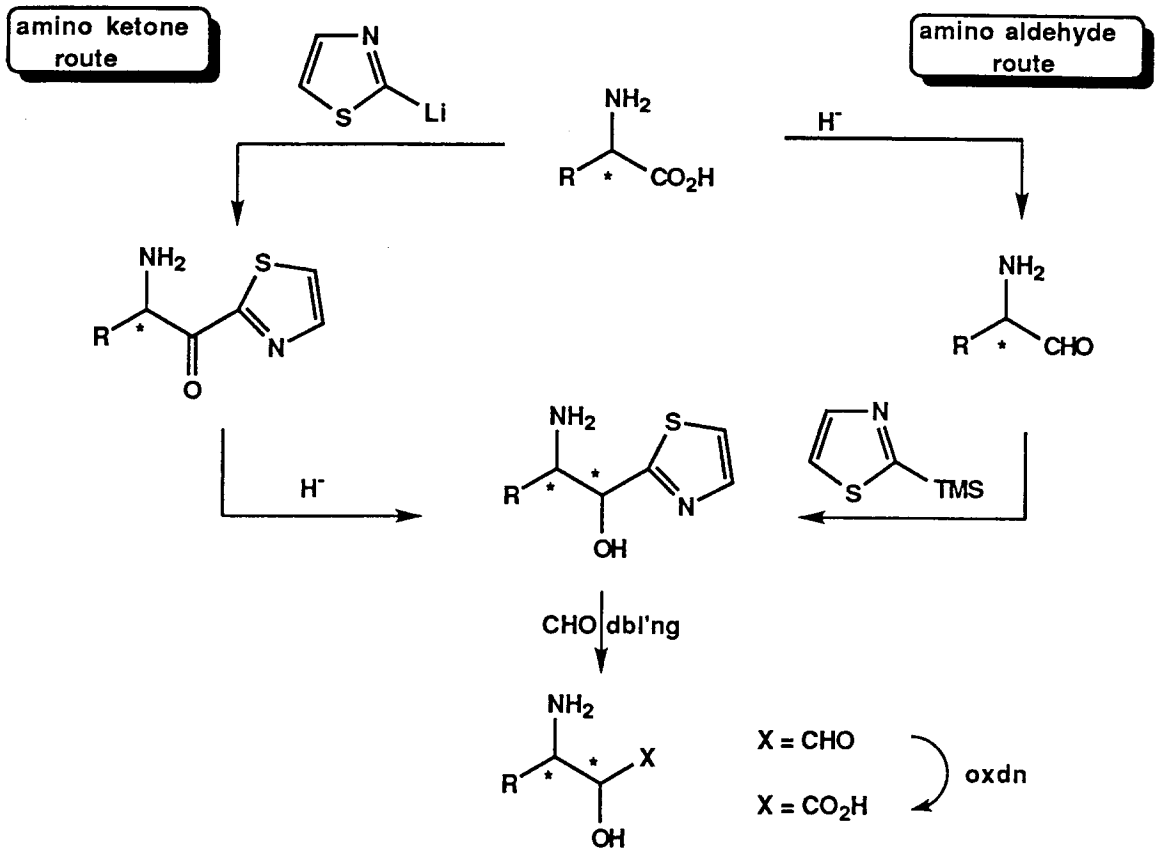
2 C

Synthesis of Hydroxyethylene Leu-Gly and Leu-Leu Isosteres from L-Leucine

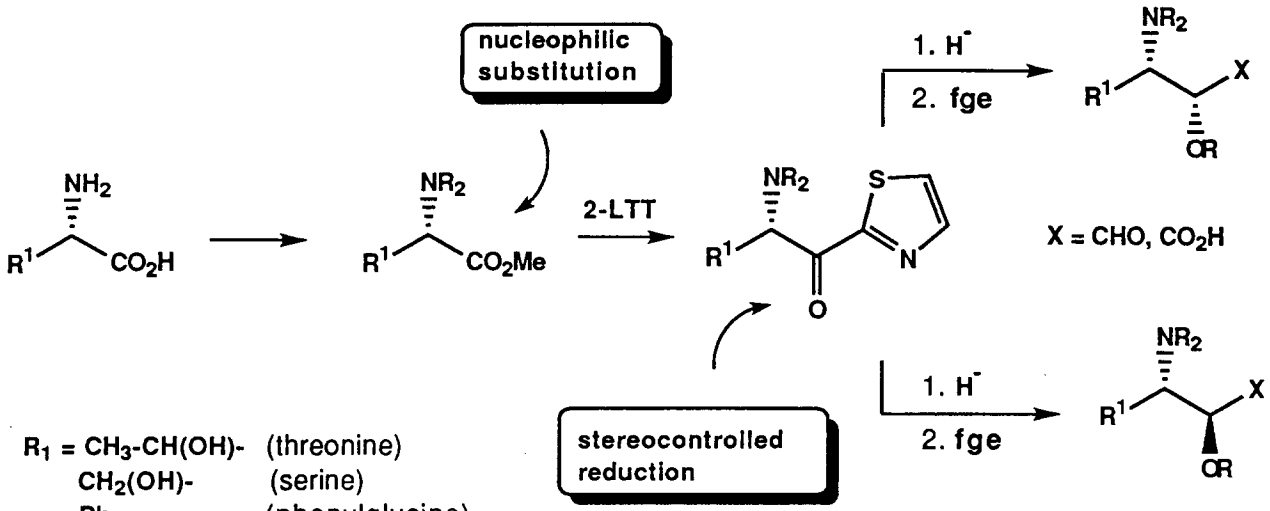
B. Elaboration of the *E*-Enoate



Thiazole-based Strategies to β-Amino-α-Hydroxy Acids from α-Amino Acids

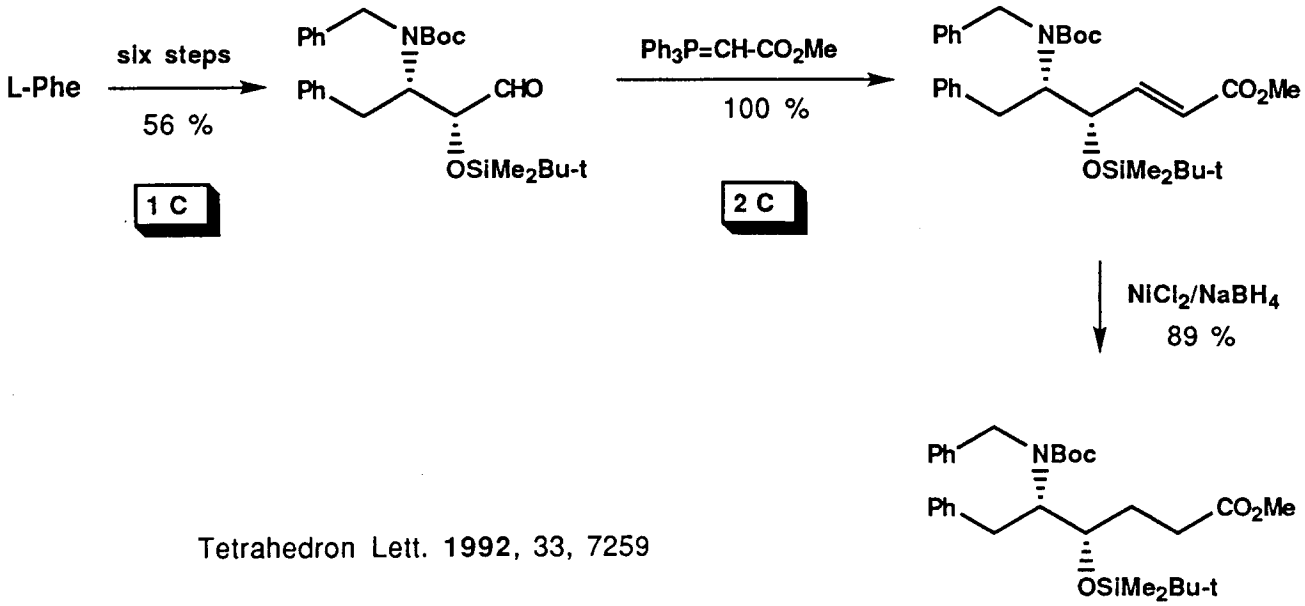


HOMOLOGATION OF α-AMINO ACIDS via THIAZOLYL α-AMINO KETONES



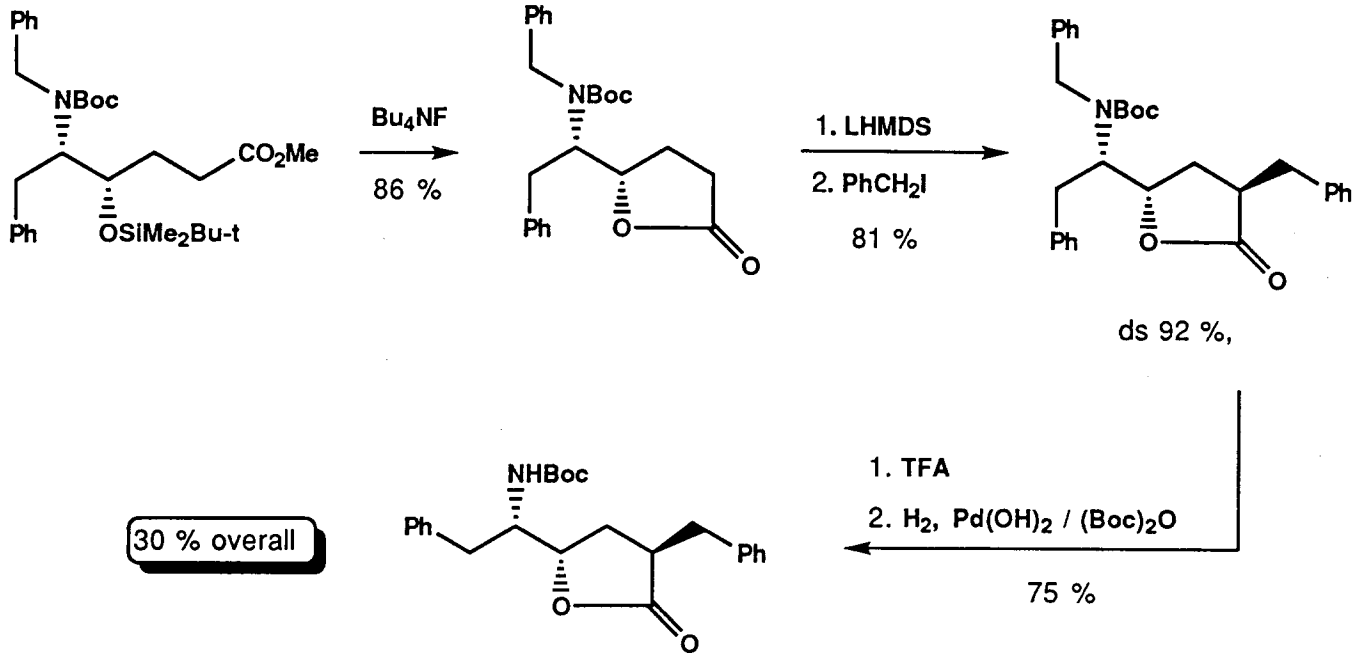
R_1 = CH_3-CH(OH)- (threonine)
CH_2(OH)- (serine)
Ph- (phenylglycine)
Ph-CH_2- (phenylalanine)
CH_3-$CH(CH_3)$-CH_2- (leucine)

Synthesis of Hydroxyethylene Phe-Phe Isostere from L-Phenylalanine



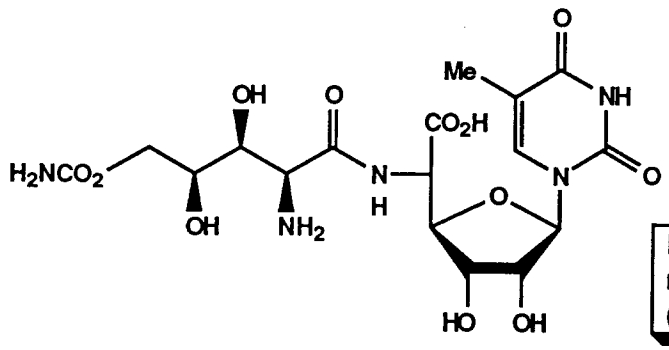
Tetrahedron Lett. **1992**, 33, 7259

Synthesis of Hydroxyethylene Phe-Phe Isostere from L-Phenylalanine



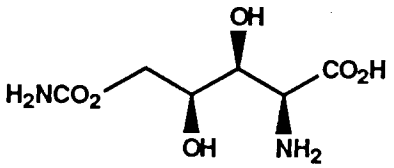
Tetrahedron Lett. **1992**, 33, 7259

POLYOXIN J : Skeletal Disconnection

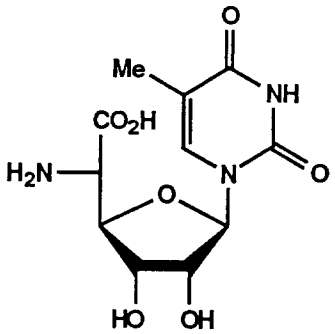


Peptidyl pyrimidine nucleoside antibiotic (fungicide)

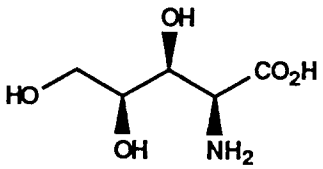
H_3O^+



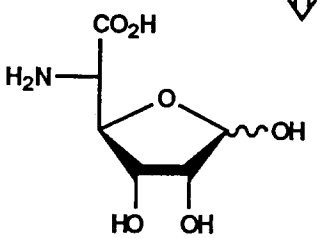
5-*O*-Carbamoylpolyoxamic Acid



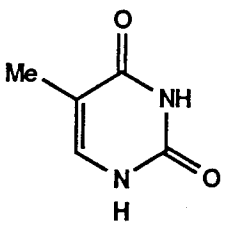
Thymine Polyoxin C



Polyoxamic Acid (xylo)

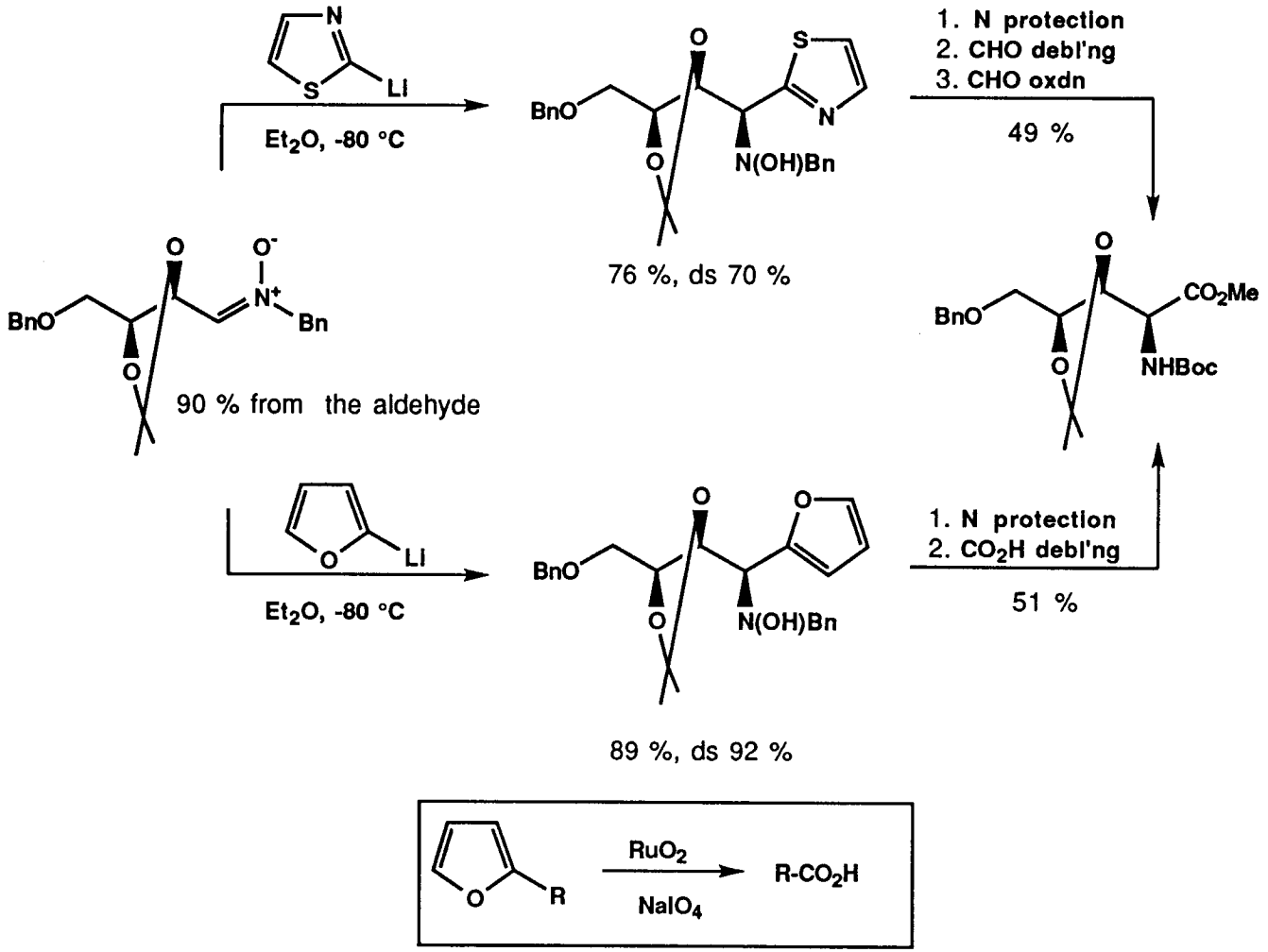


5-Amino-D-Allo-furanuronic Acid

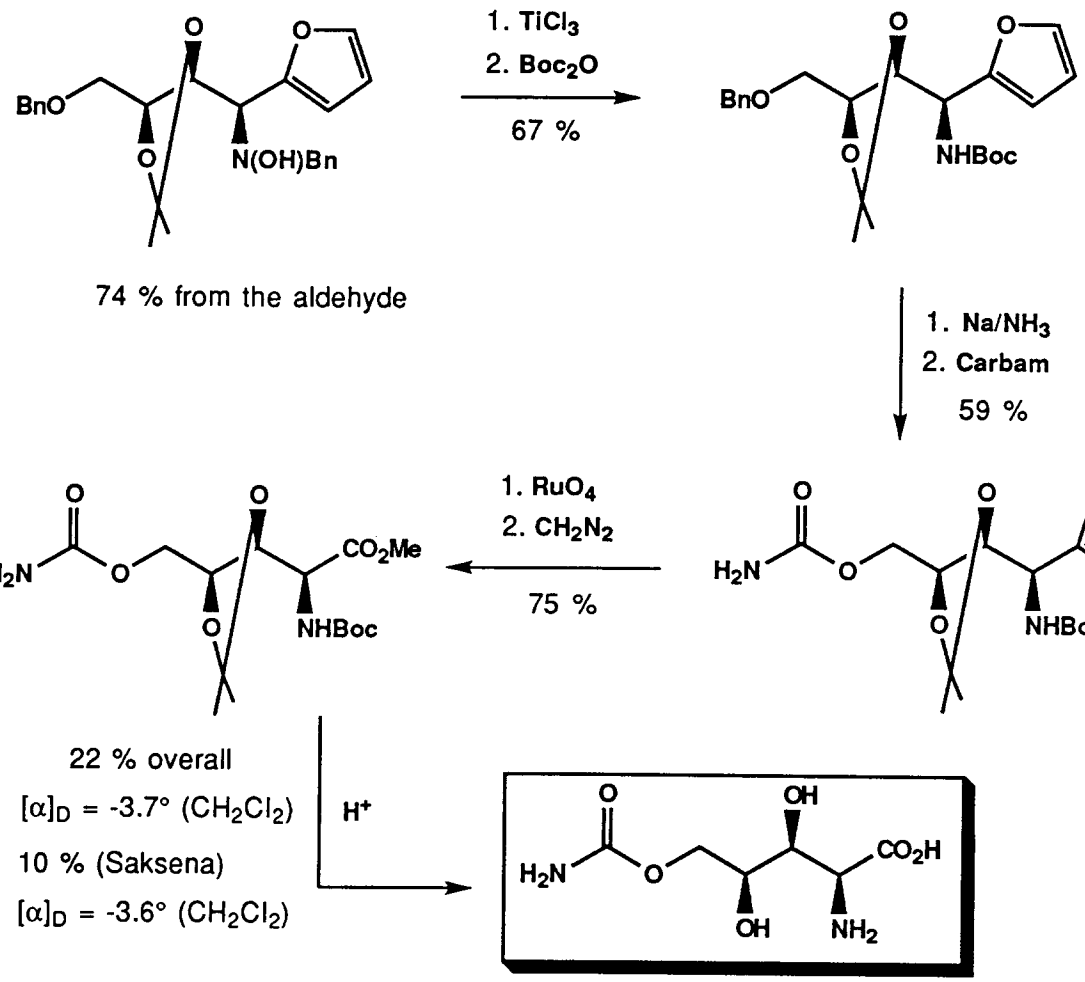


Thymine

ROUTES TO THE POLYOXAMIC ACID SKELETON

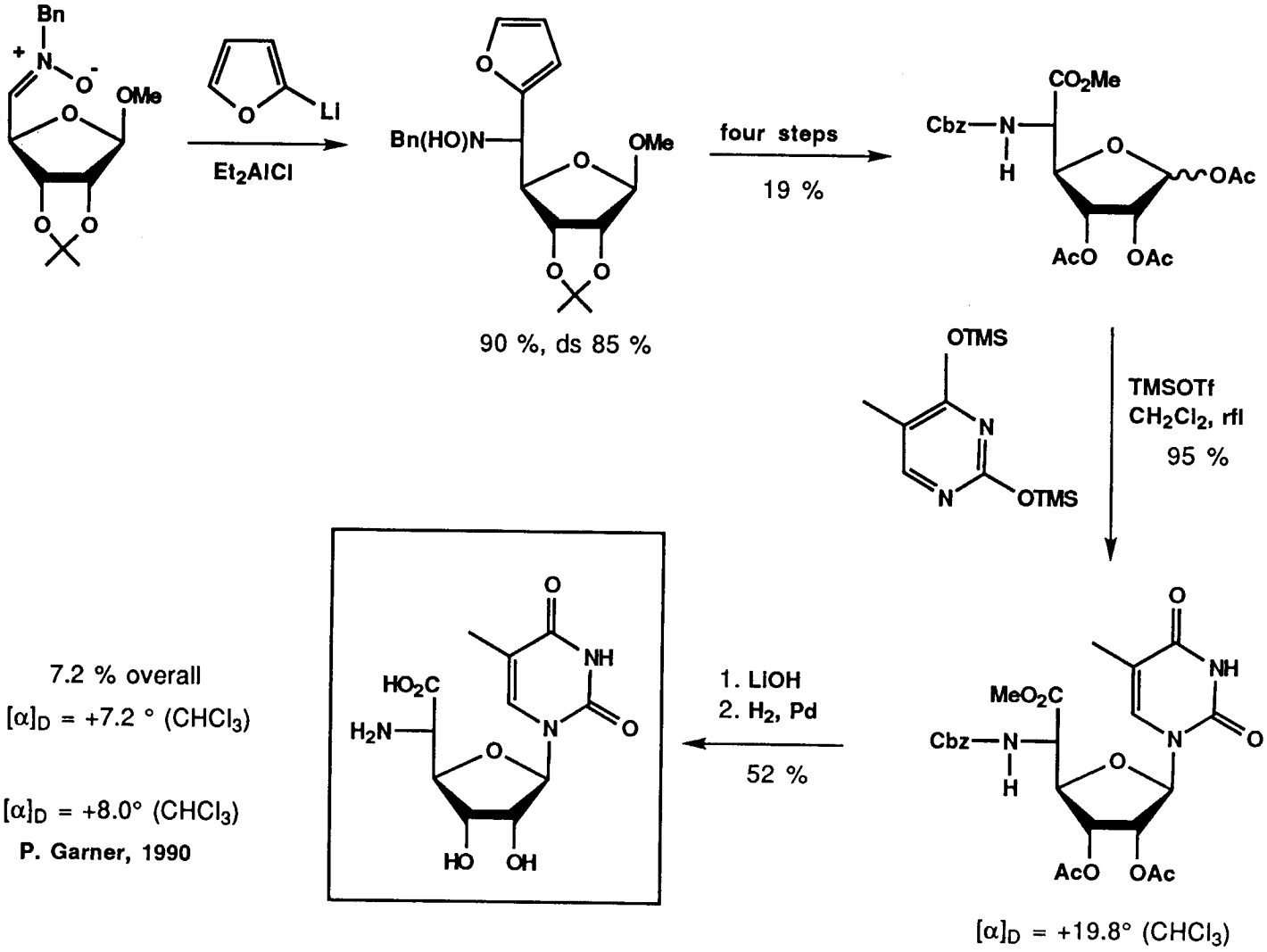


SYNTHESIS OF 5-*O*-CARBAMOYLPOLYOXAMIC ACID



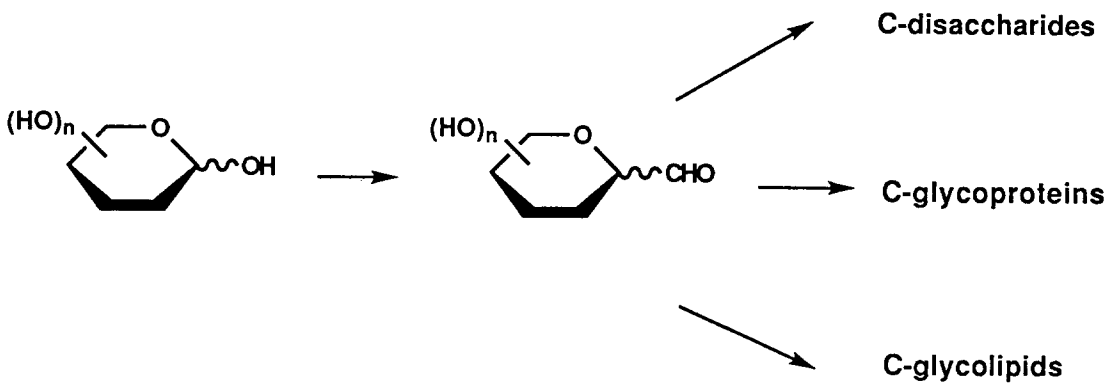
Tetrahedron Lett. **1993**, 34, 5479

TOTAL SYNTHESIS OF THYMINE POLYOXIN C FROM D-RIBOSE NITRONE

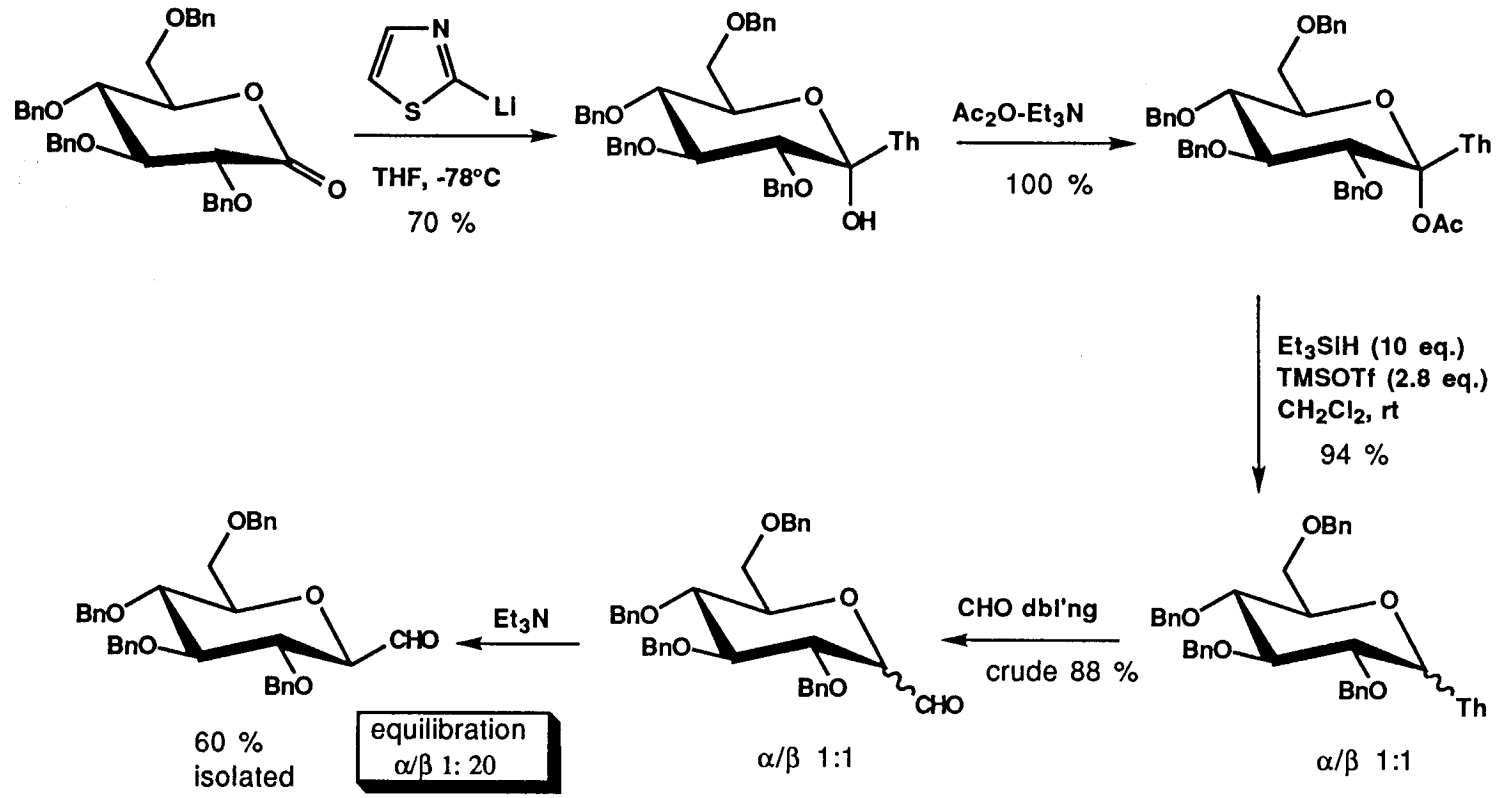


FORMYLATION AT THE ANOMERIC POSITION OF SUGARS.

A KEY REACTION TOWARD CARBON-LINKED GLYCOCONJUGATES

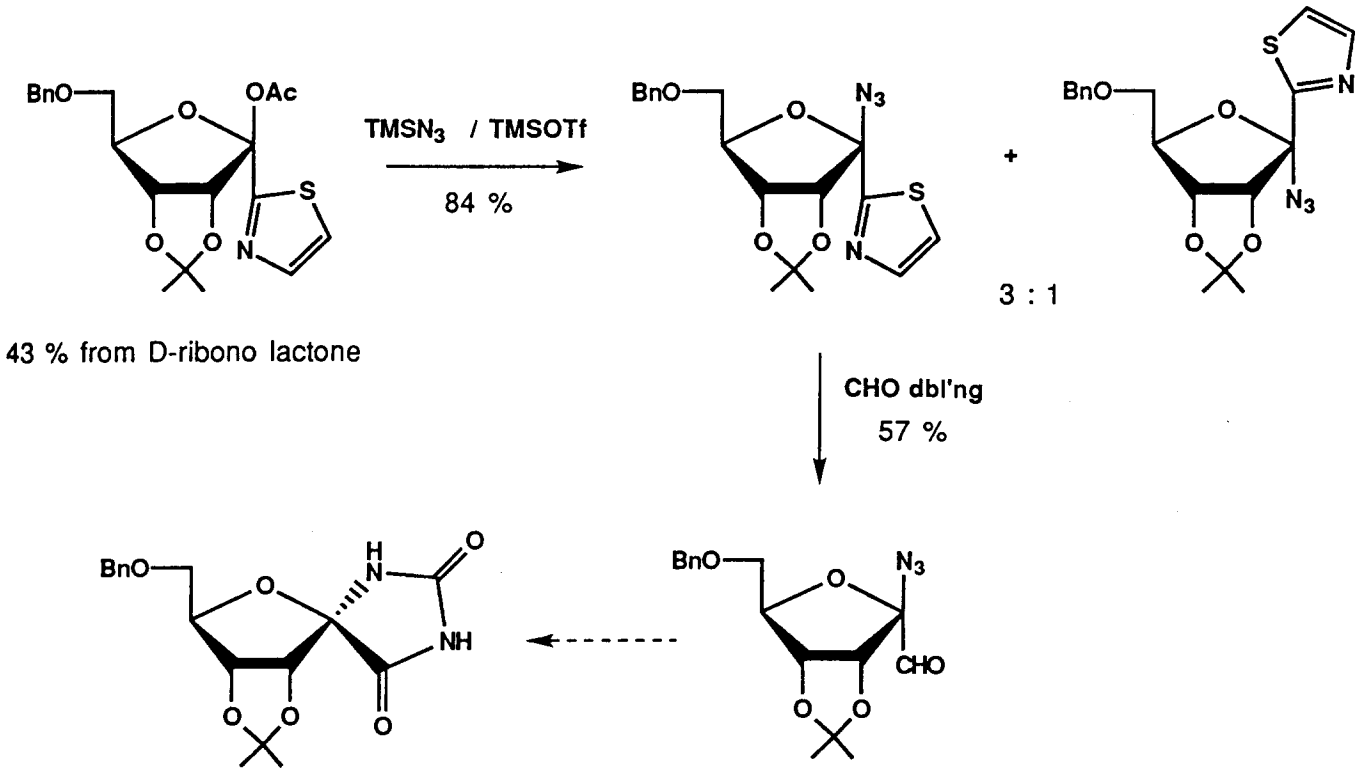


FORMYLATION OF TBG BY THIAZOLE-MASKED FORMYL ANION

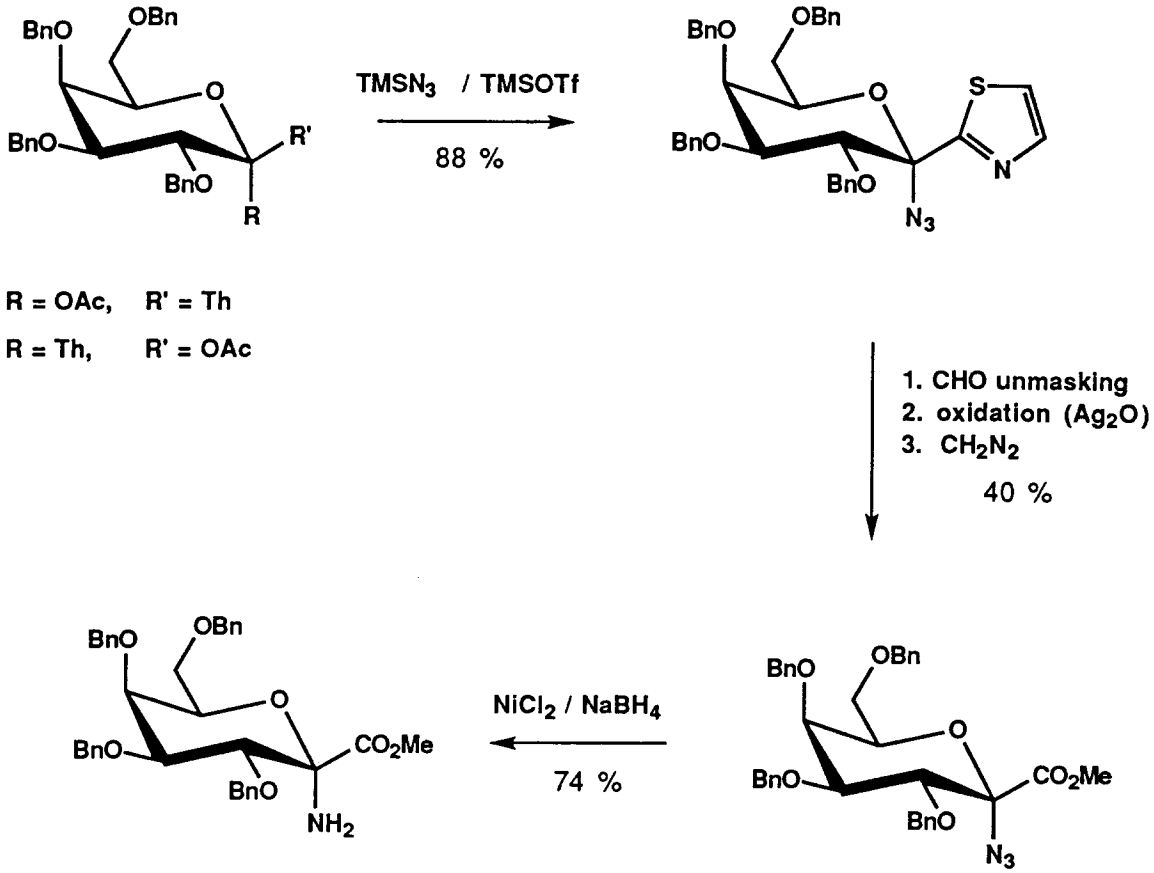


Tetrahedron Lett. **1993**, 34, 7319

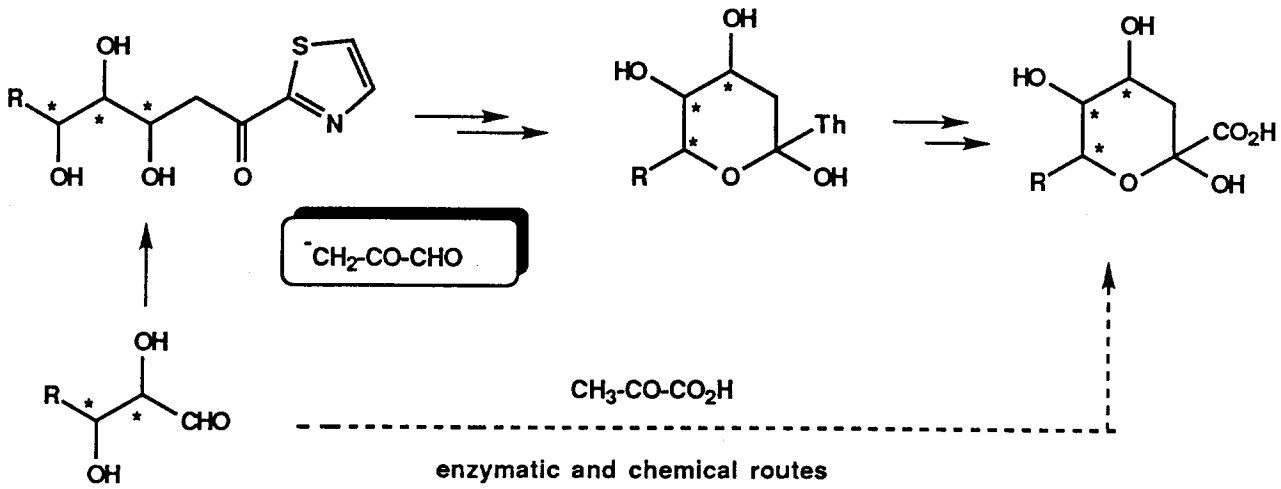
FORMAL SYNTHESIS OF HYDANTOCIDIN



Synthesis of Novel Sugar α-Azido and α-Amino Acids



Three-Carbon Chain Extension of Aldoses to 3-Deoxy 2-Ulosonic Acids

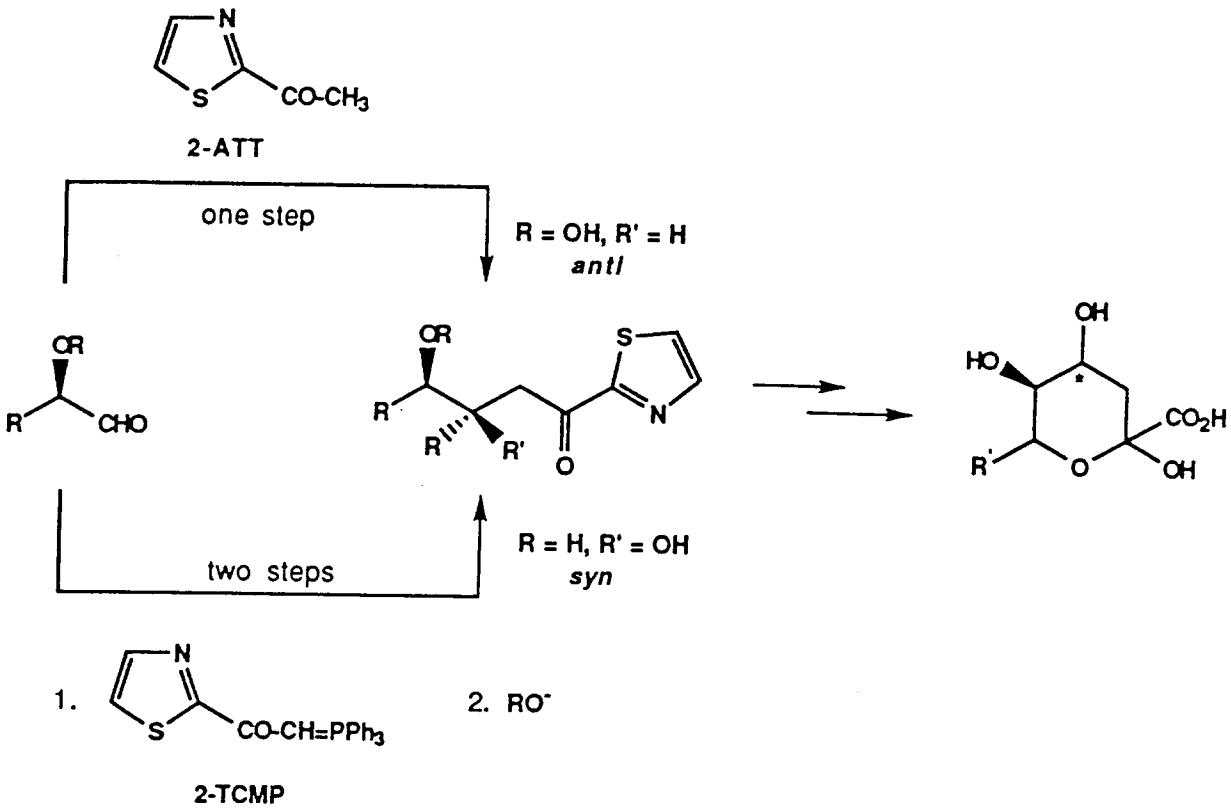


S. David
C.-H. Wong
G. M. Whitesides

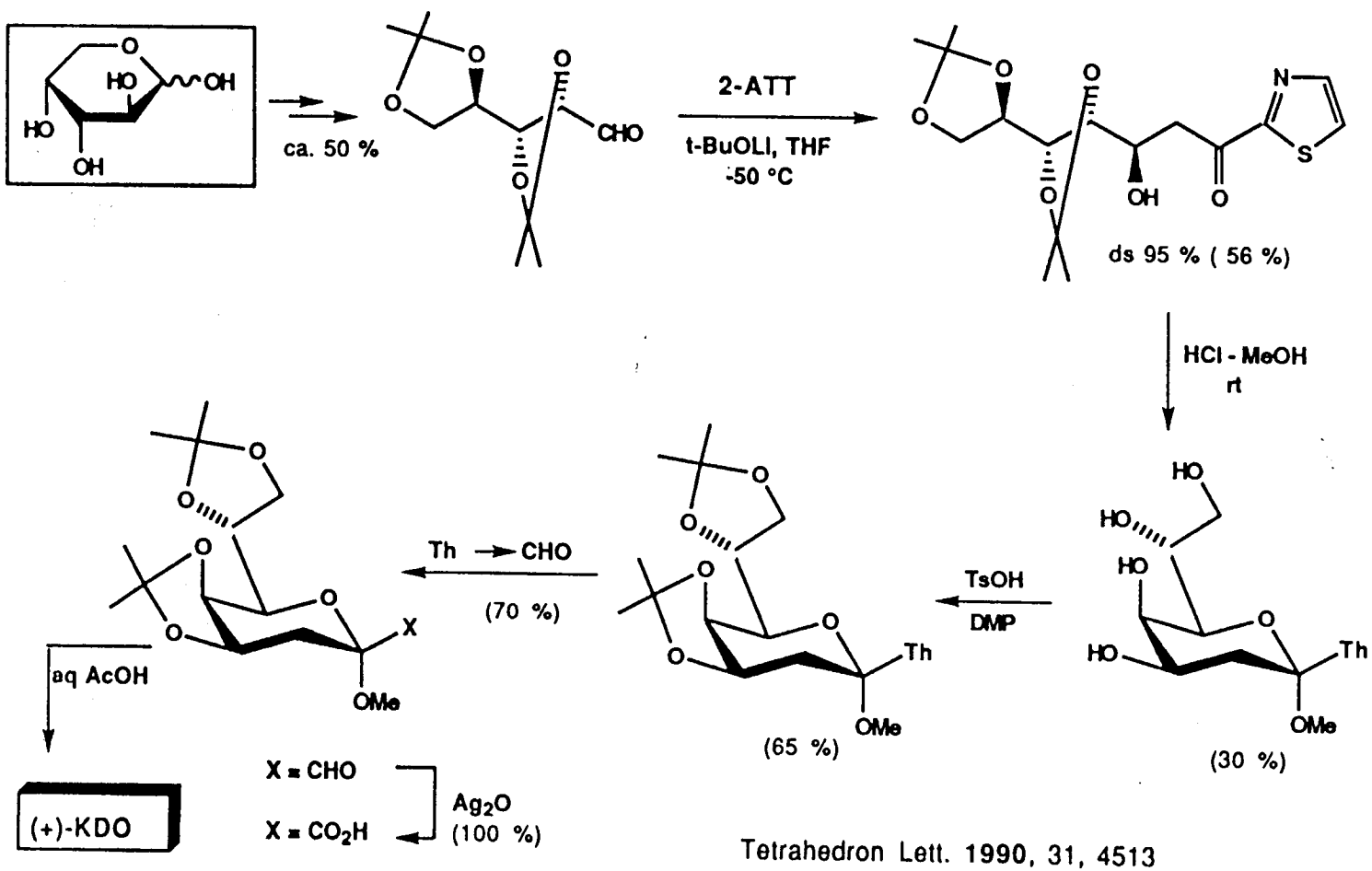
R. R. Schmidt
A. Vasella
T.-H. Chan
B. Giese

3-Deoxy 2-Ulosonic Acids via 2-Thiazolyl β-Hydroxy Ketones

Stereocontrol at C-4

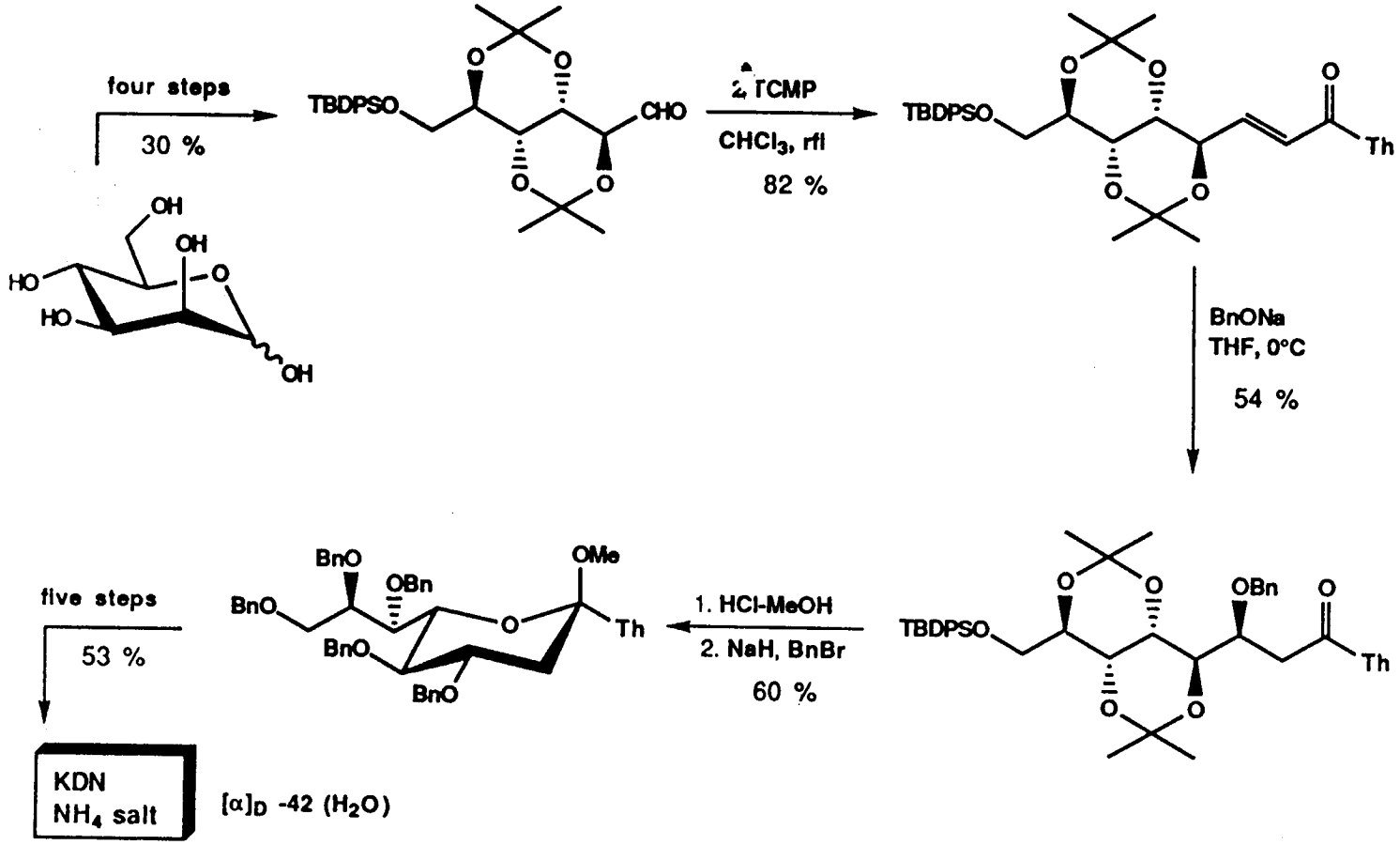


Total Synthesis of 3-Deoxy-D-*manno*-2-octulosonic Acid (KDO) from D-Arabinose



Tetrahedron Lett. 1990, 31, 4513
J. Org. Chem. 1991, 56, 5294.

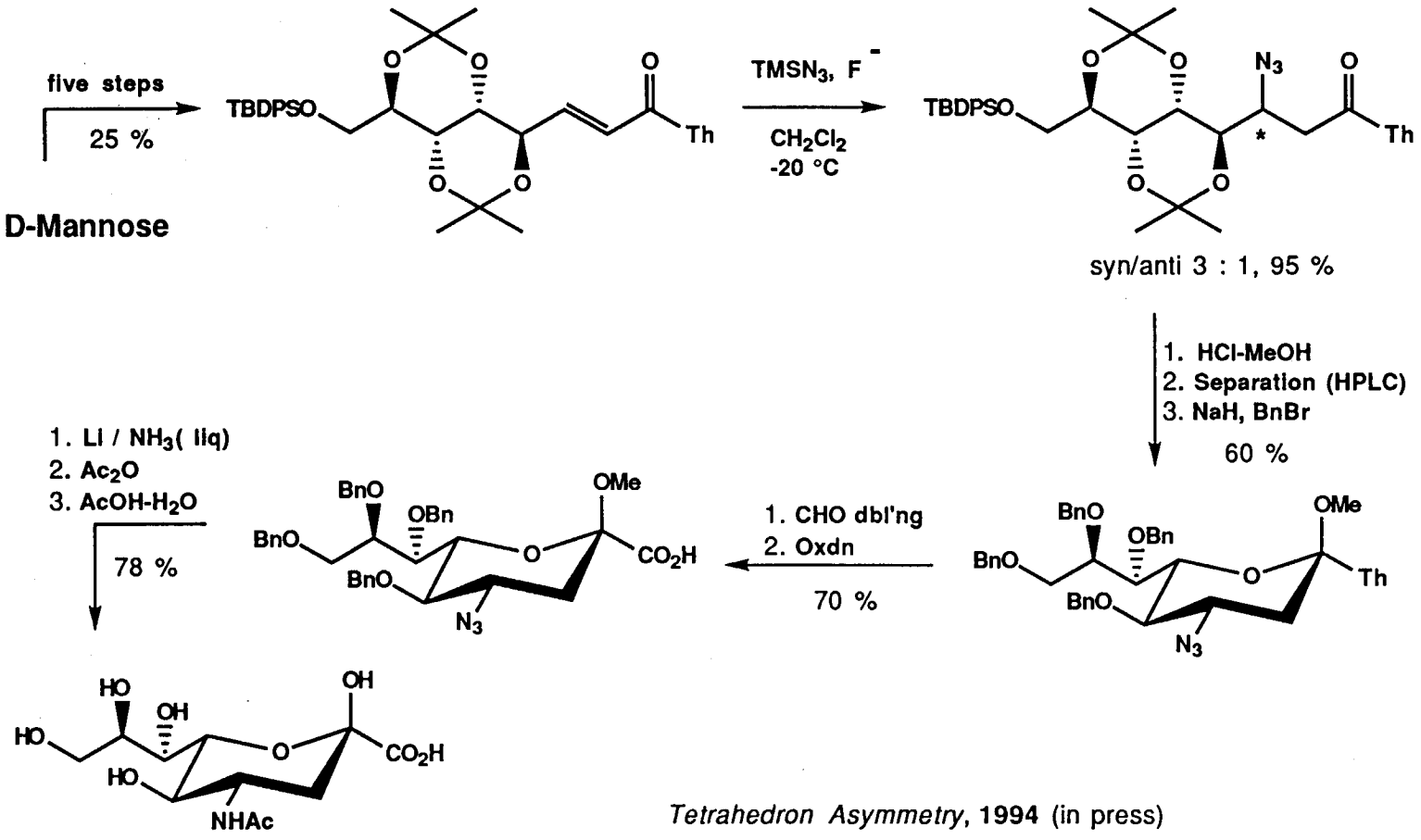
Total Synthesis of 3-Deoxy-D-*glycero*-D-*galacto*-2-nonulosonic Acid (*KDN*)



J. Am. Chem. Soc. 1994, 116, 3324

Synthesis of iso-Neu4Ac from D-Mannose

(Trimethylsilyl Azide Route)



Tetrahedron Asymmetry, **1994** (in press)