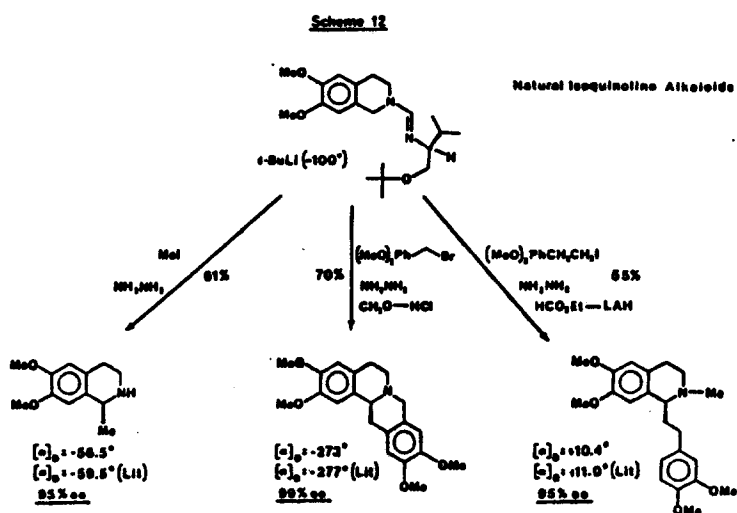
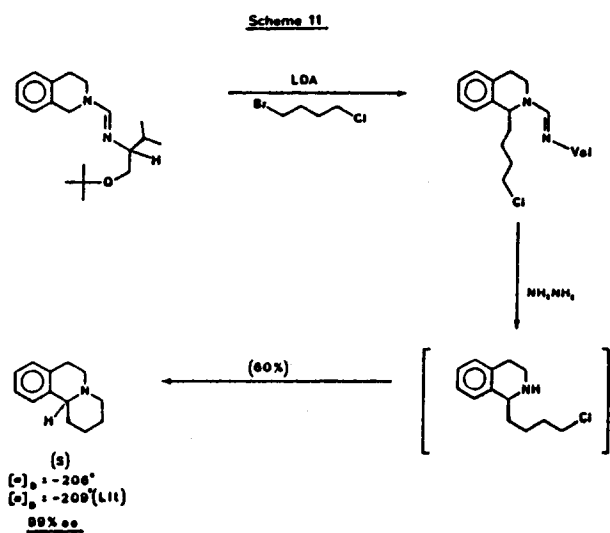
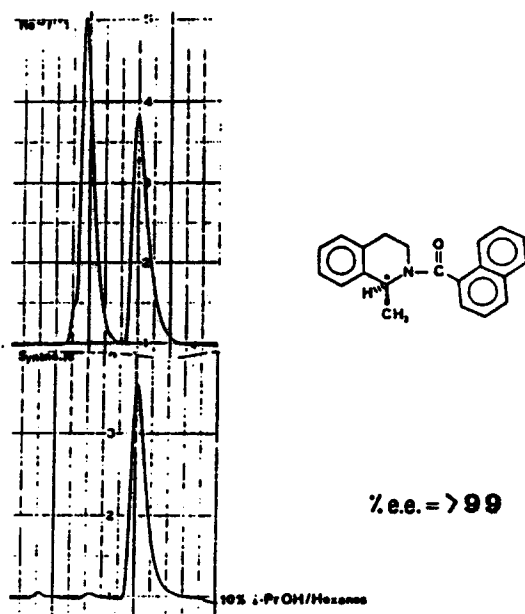
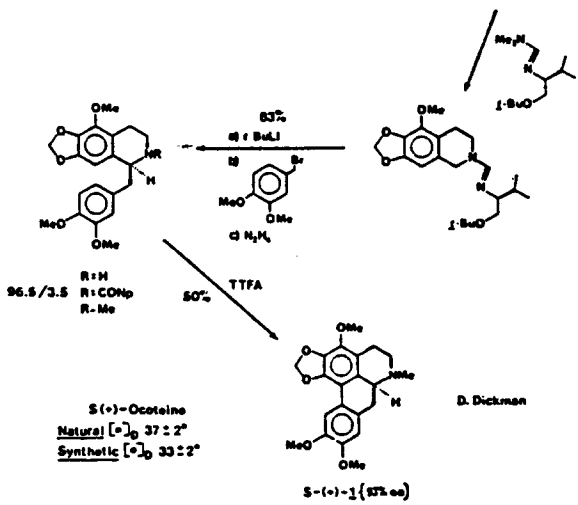
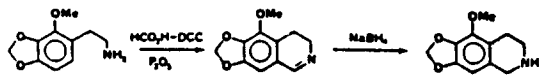


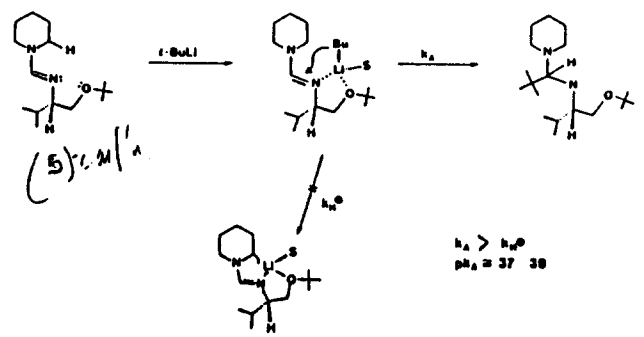
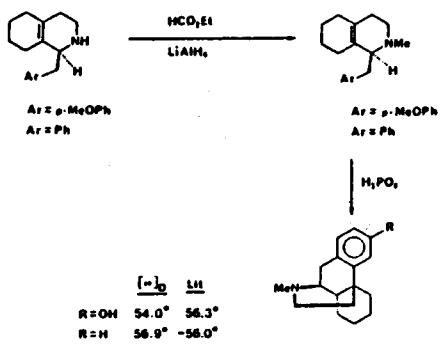
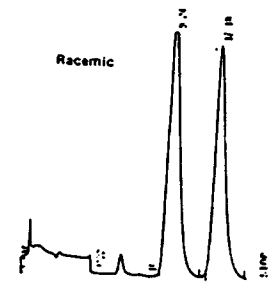
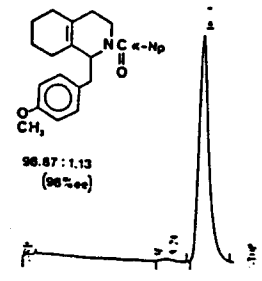
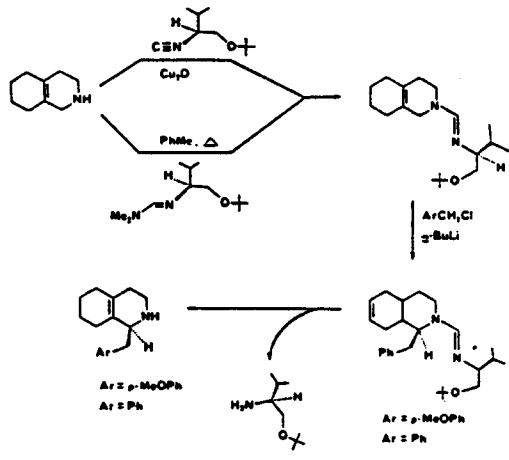
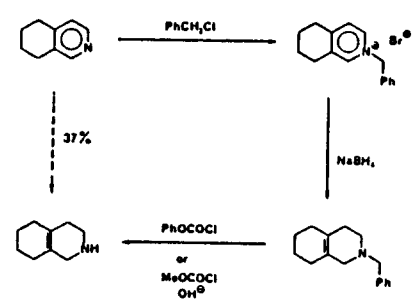
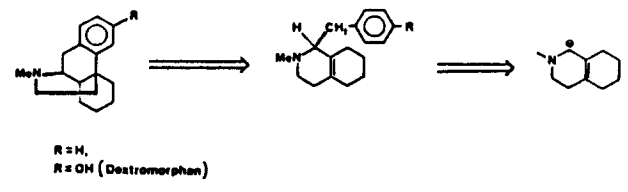
(ee's determined by chiral HPLC analyses)

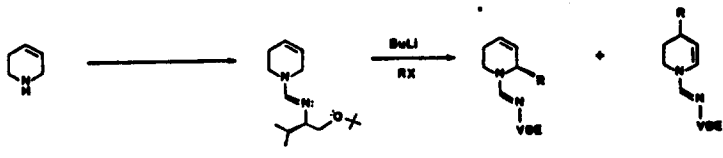
Dickman, Boes





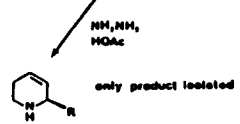
Morphinan Synthesis



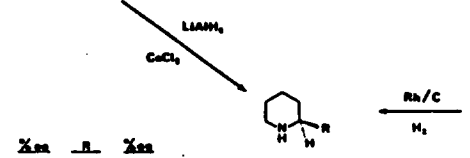
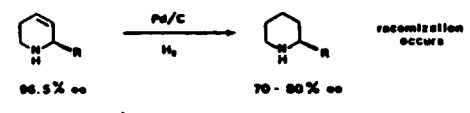


RX	2	1
PhCH ₂ Cl	2	1
PhCH ₂ CH ₂ Br	2	1
n-Hept Br	2.5	1

R	% ee	%
PhCH ₂	96.5	49
PhCH ₂ CH ₂	87.0	49
n-Hept	92.0	71



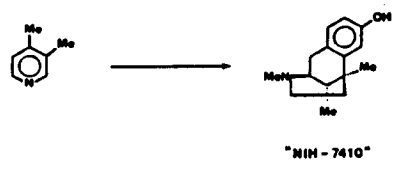
T. Bailey



R	% ee	%
PhCH ₂	96.5	96.0
PhCH ₂ CH ₂	87.0	83.0
n-Hept	92.0	87.0

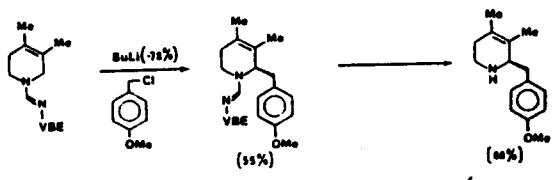
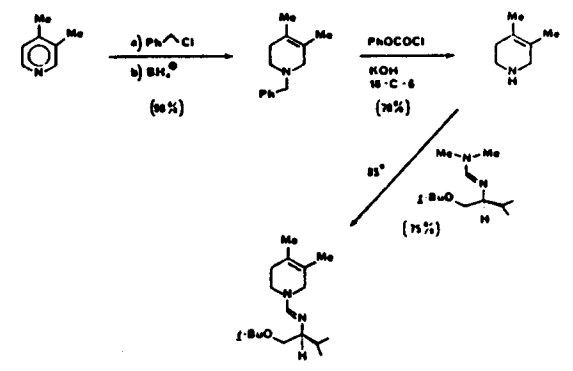
Bailey, Dickman

BENZOMORPHANS (Analgesic)

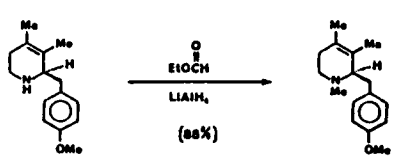
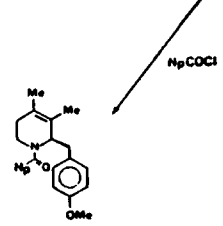


"NIN-7410"

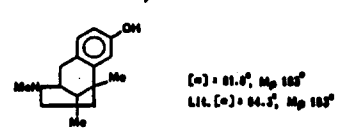
E. L. May, *J. Org. Chem.*, 24, 1432 (1959)



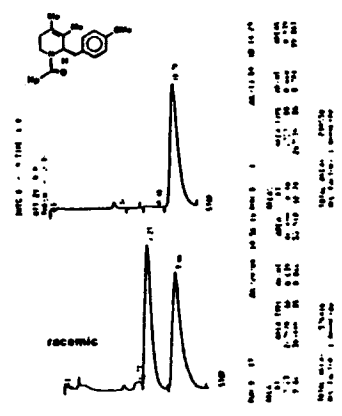
98% ee
HPLC - Pirikio Column



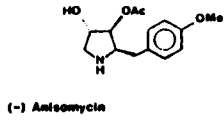
(60%) 40% HBr Δ



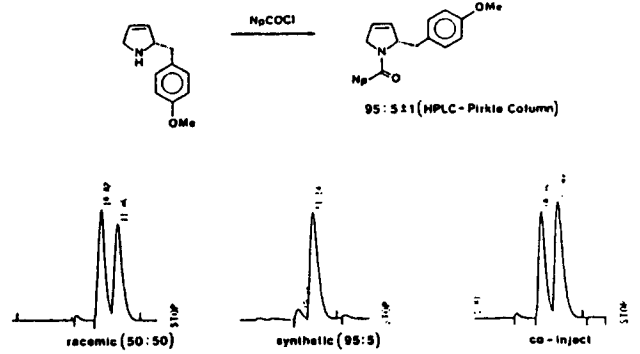
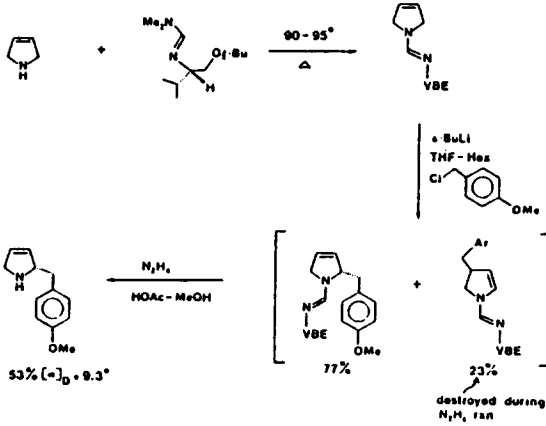
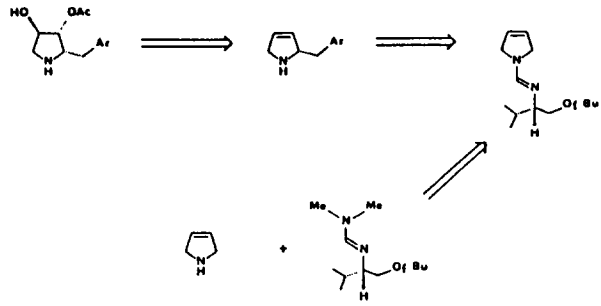
[α]_D = 81.0°, M_p 183°
Lit. [α]_D = 84.5°, M_p 183°



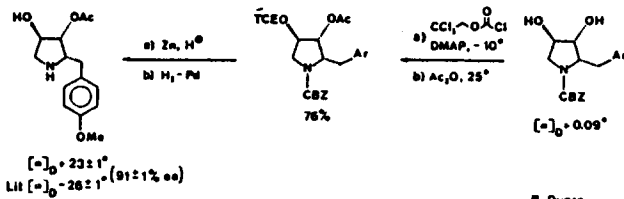
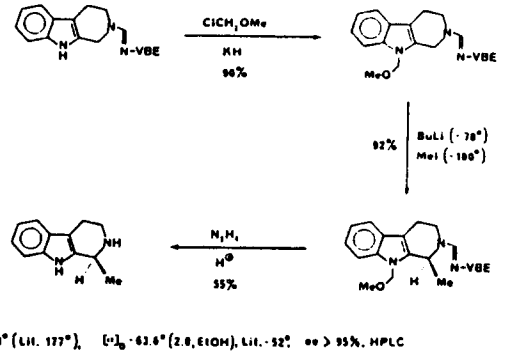
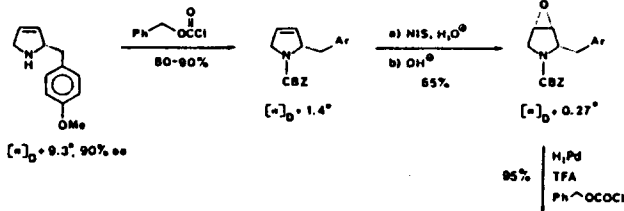
Asymmetric Synthesis of (+)-Anisomycin



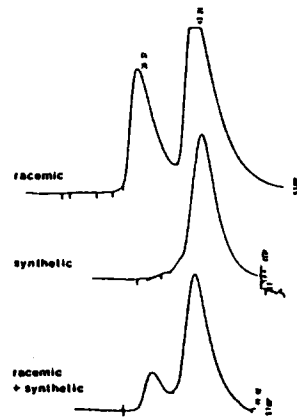
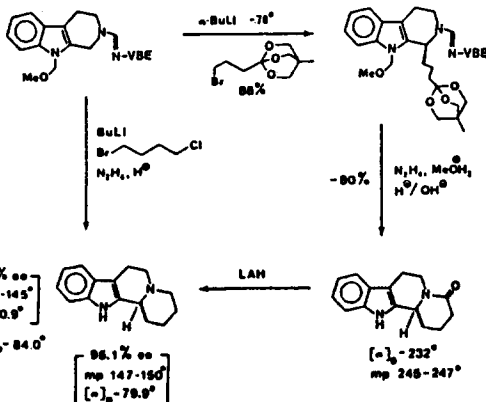
Isolation (Pfizer, 1954)
 Synthesis (+) Wong (1969)
 Oida (1969)
 Schenken (1970)
 Mall (1982)
 Synthesis (-) Moffatt (1978)



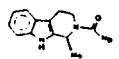
Mall's Route to Anisomycin Repeated (JACS 1982)



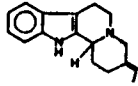
B. Dupre



Pirkle Column
 20% $i-PrOH$ -Hexane

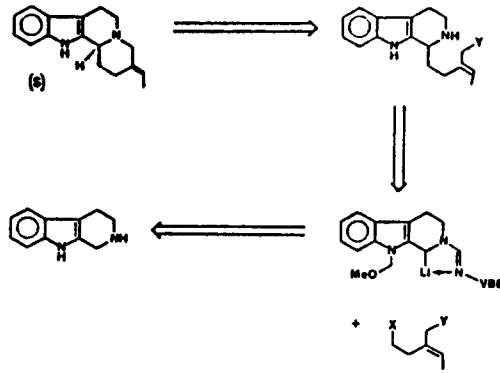


Deplancheine

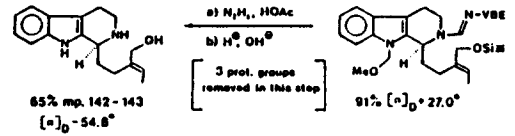
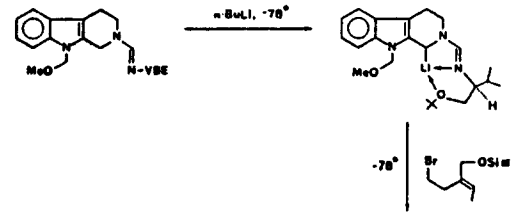
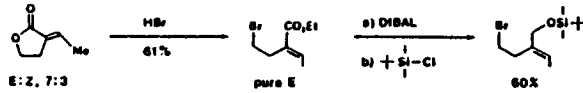
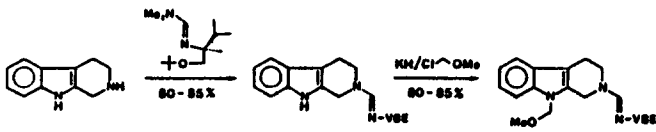


Isol. Mueson (1980) $[\alpha]_D^{25} + 54^\circ$; "S"-config., mp. 115°

- Synthesis (2)** Winterfeldt (1974)
 Mueson (1980)
 Joule (1980)
 Hamell (1981)
 Overman (1982)
 Calabi (1982)
 Rosenmund (1983)



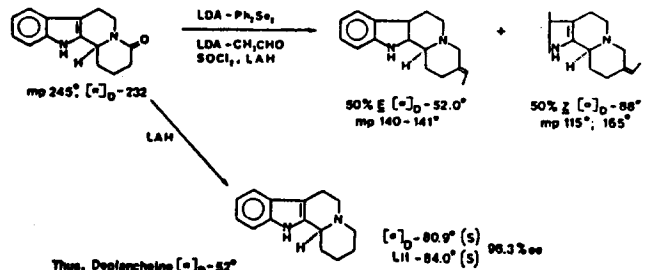
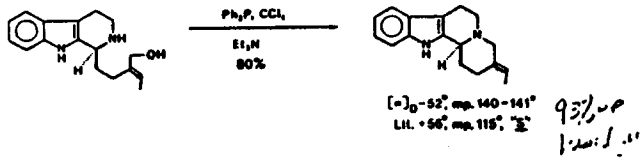
Starting Materials



T. Sohda

T. Sohda

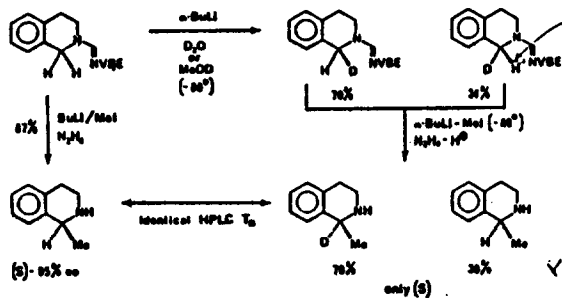
Proof of EP and Conf'n of Deplancheine



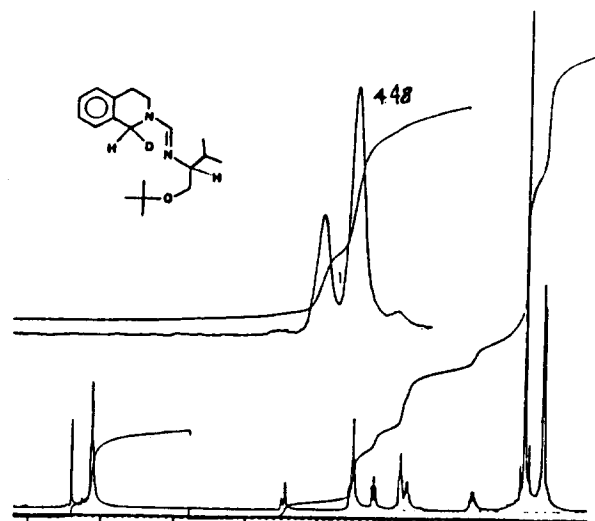
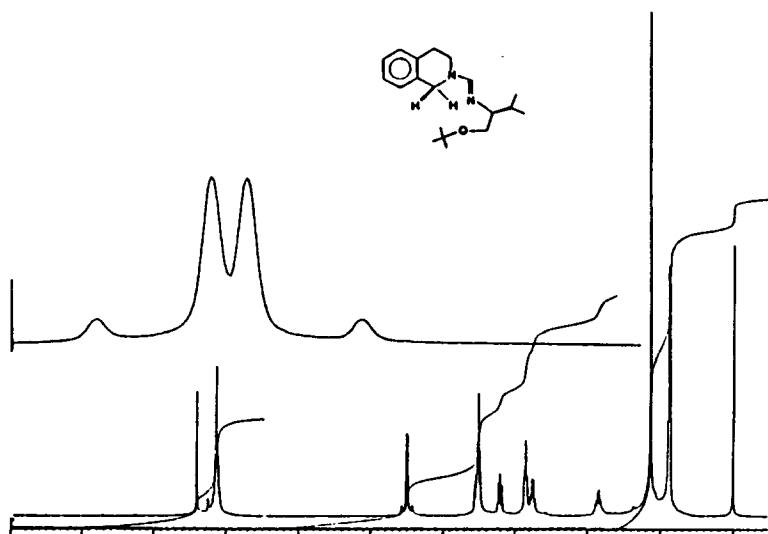
Thus, Deplancheine $[\alpha]_D - 52^\circ$
 is **2**, Natural must be **R** (+)
 EP $\geq 95\%$, since both routes gave $[\alpha]_D - 52^\circ$

Loewe, Sohda

non-stereospecific D's



M. Boes



Stereospecific Di

