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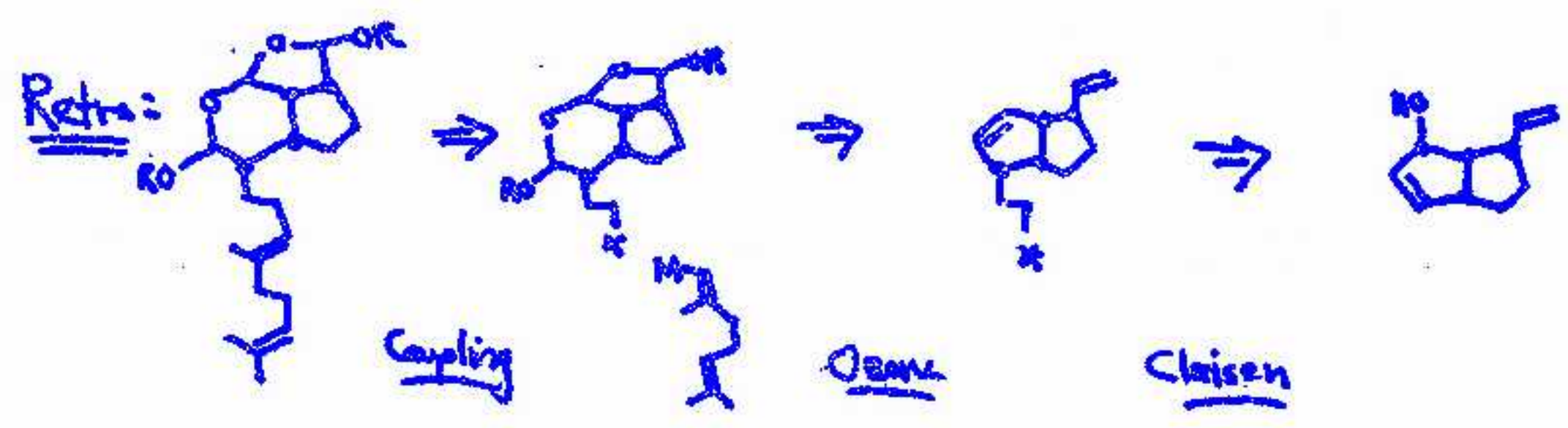
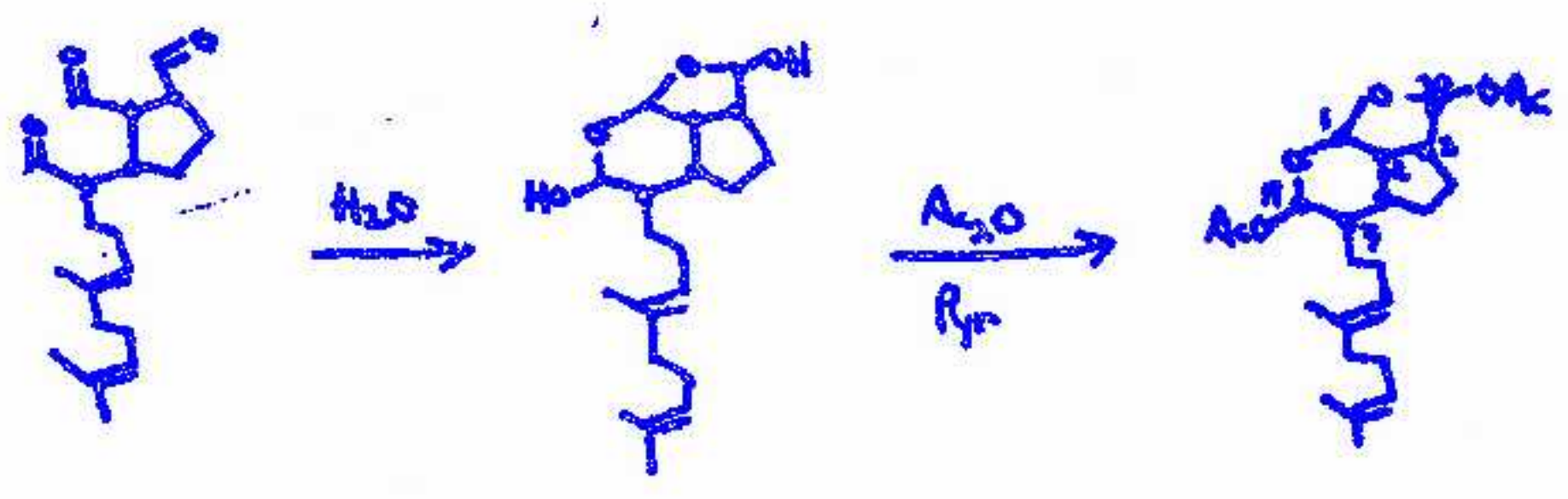
Monte Fisher
26-I-83

Synthesis of 7-Epi-Udateatrial and Udateatrial

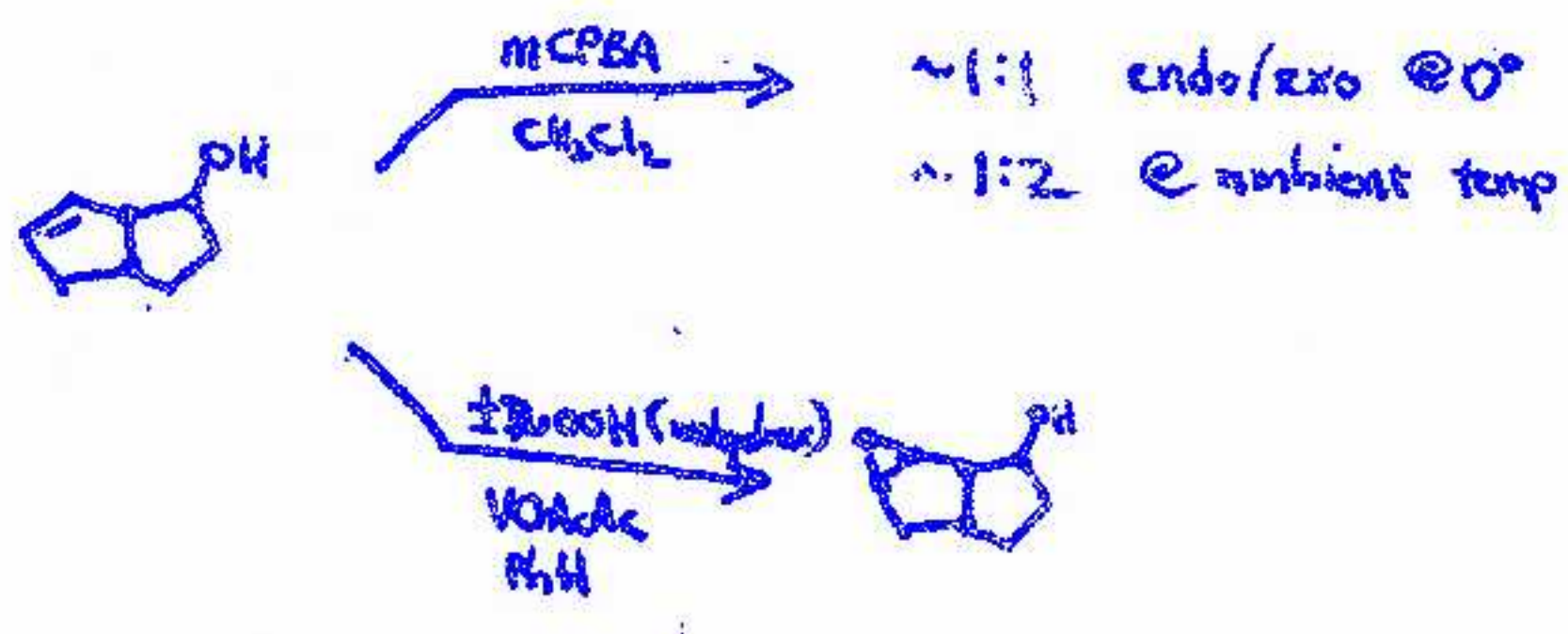
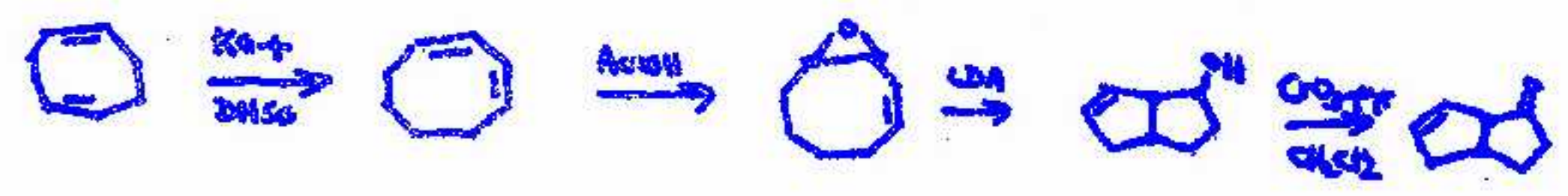
J. K. Whitesell, P. De Silva Jardim, and N. Fisher

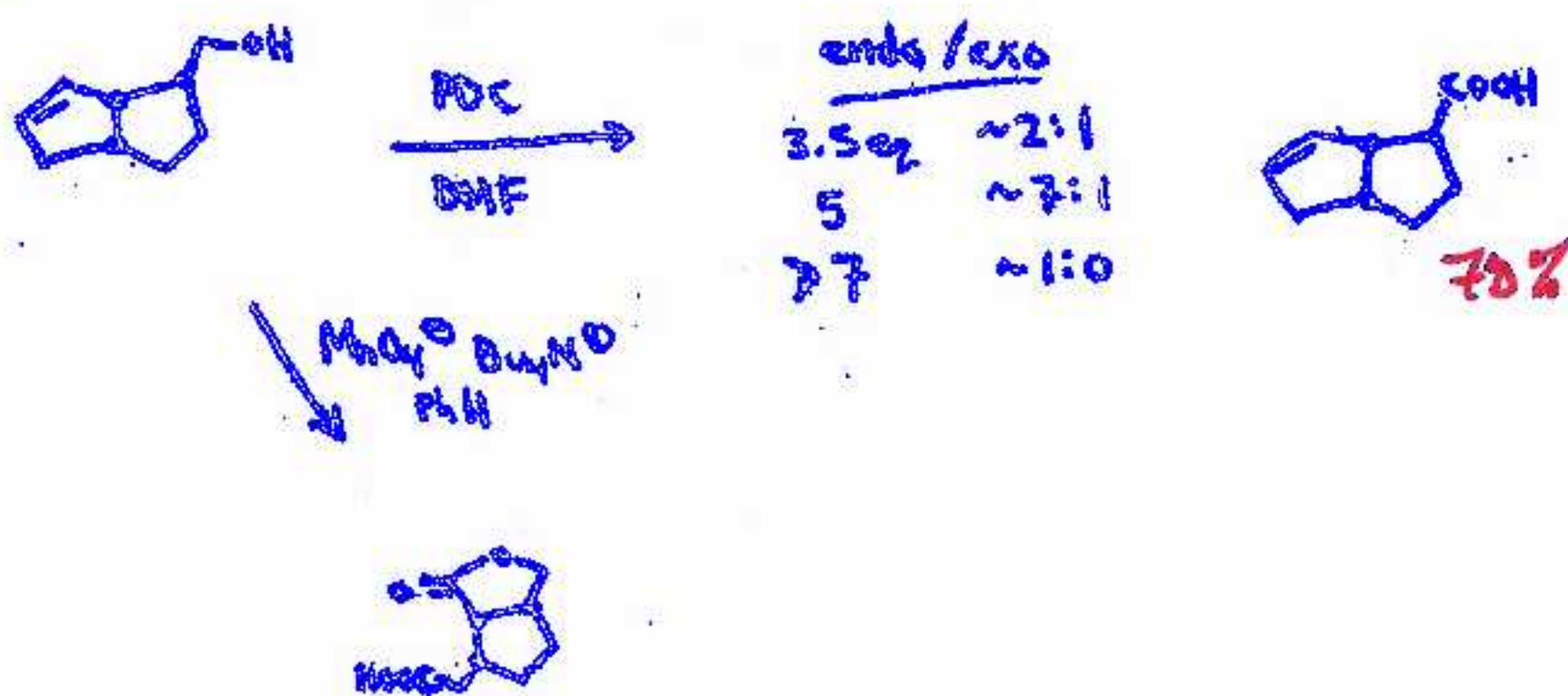
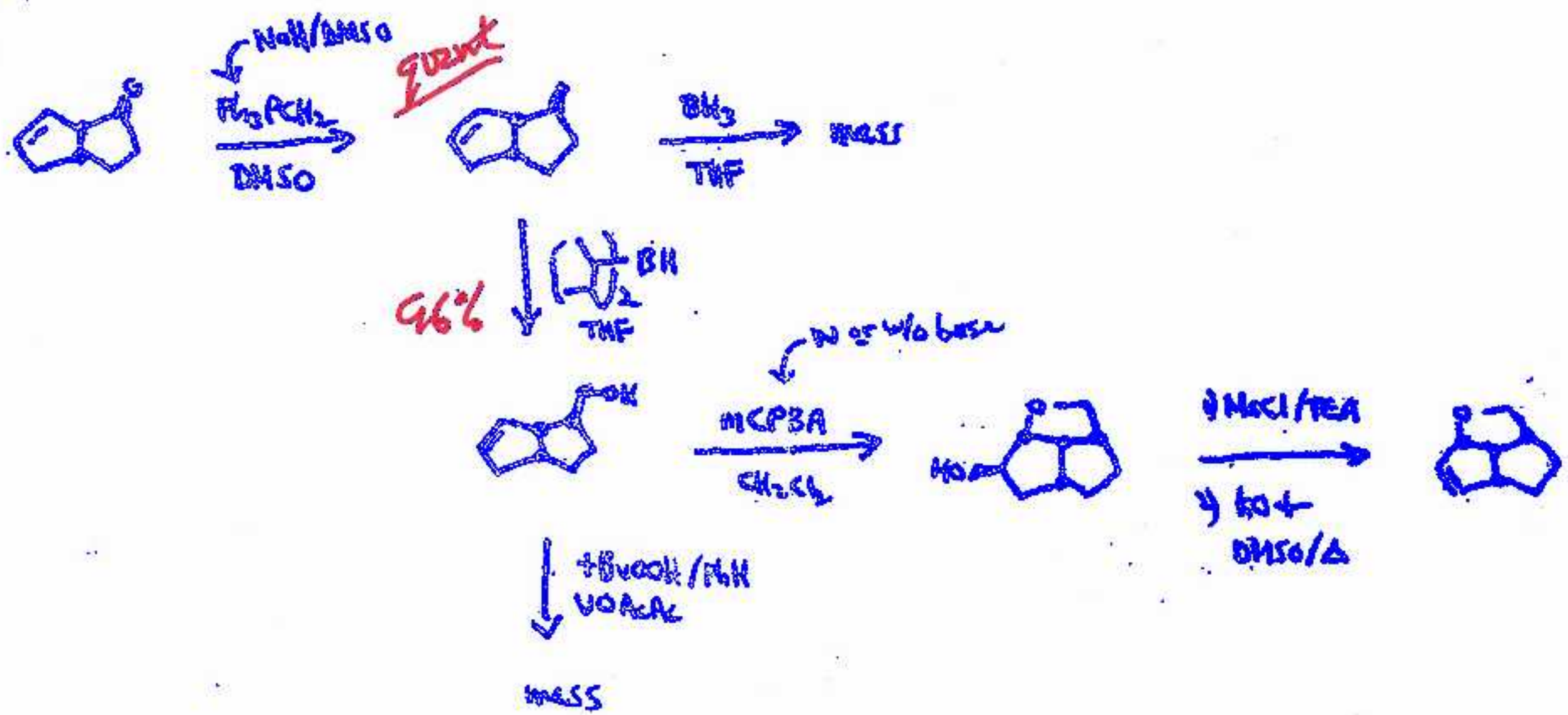
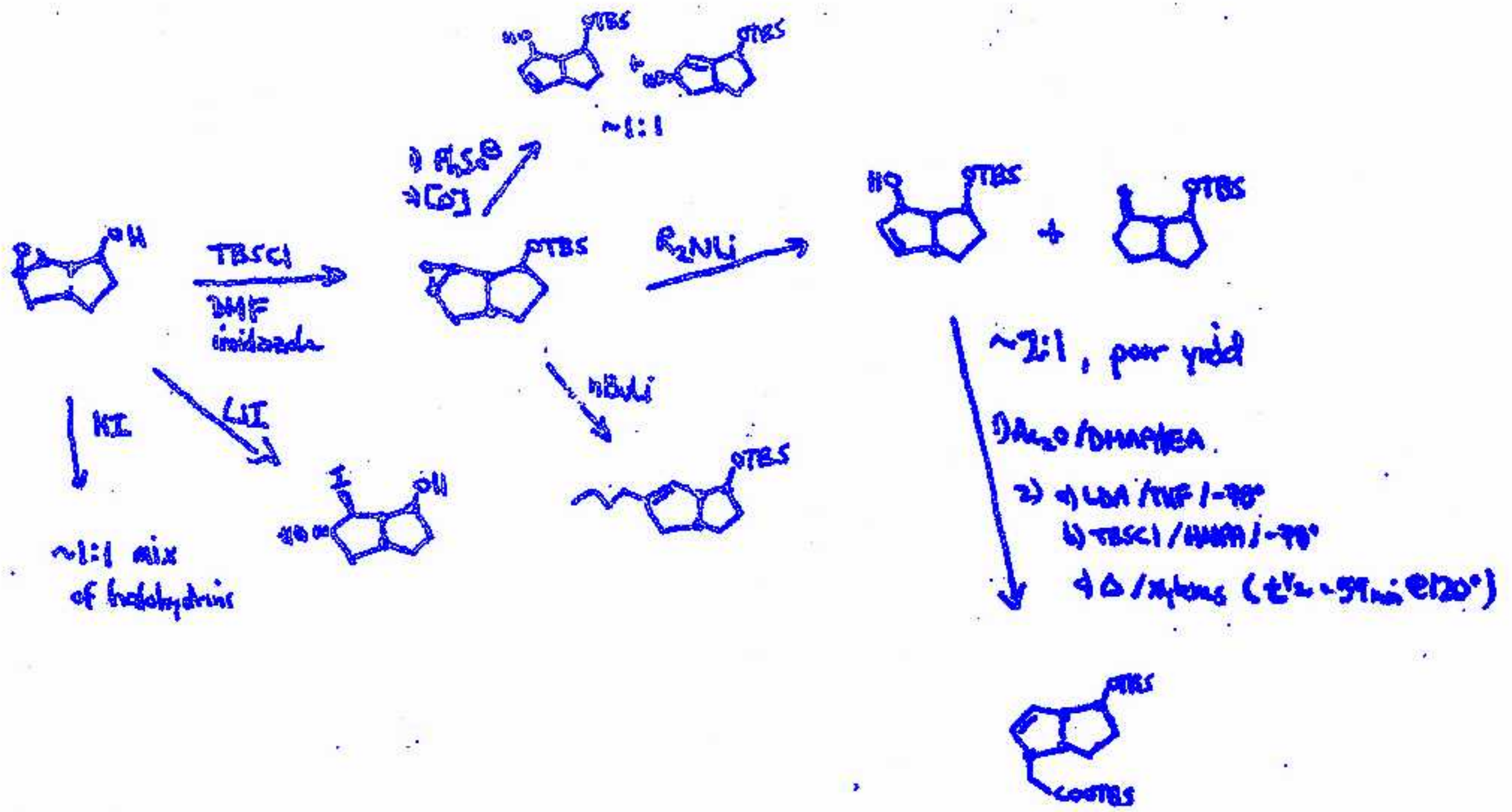
I. "Udateatrial"

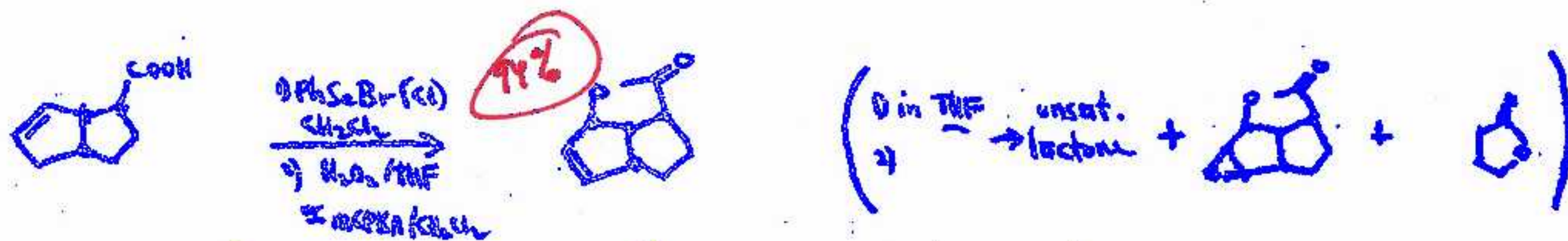
D.J. Faulkner, et al., JOC, 1981, 46, 2435



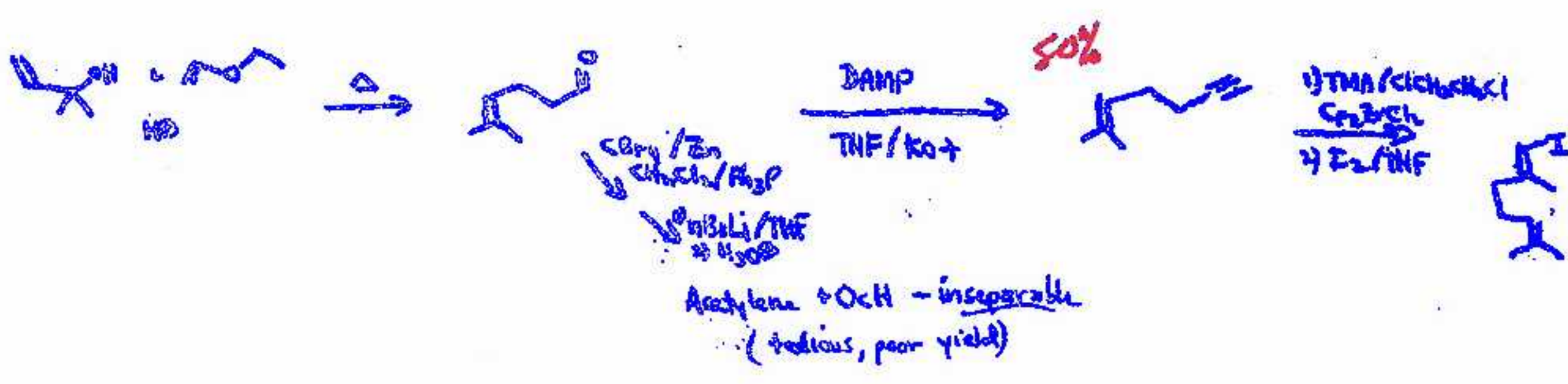
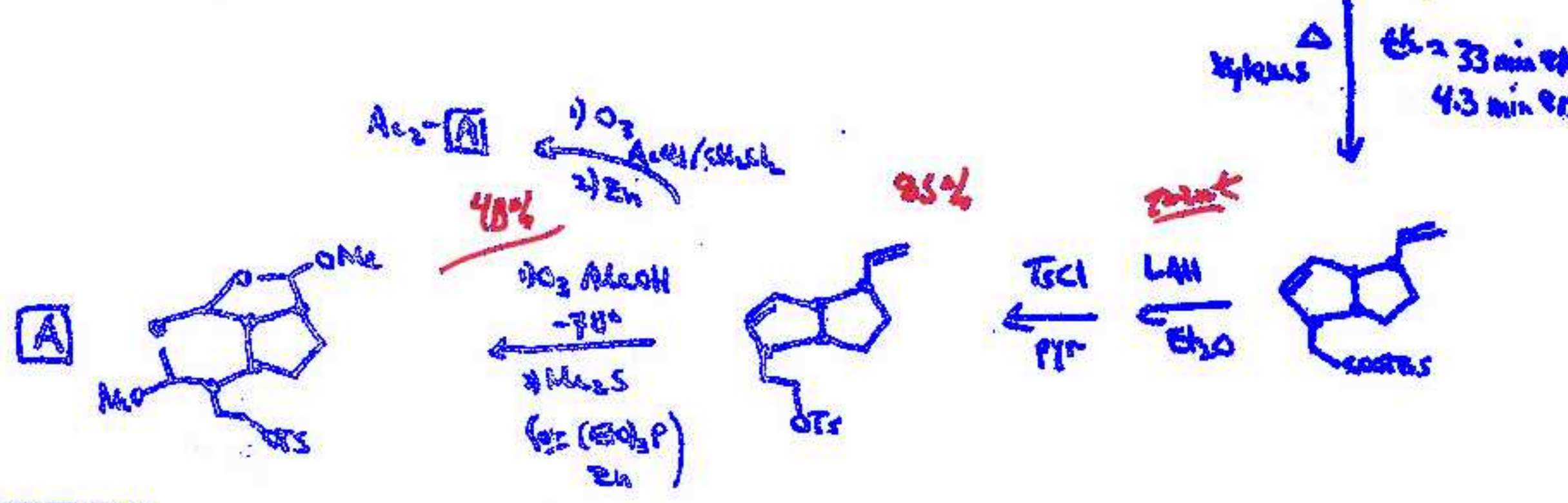
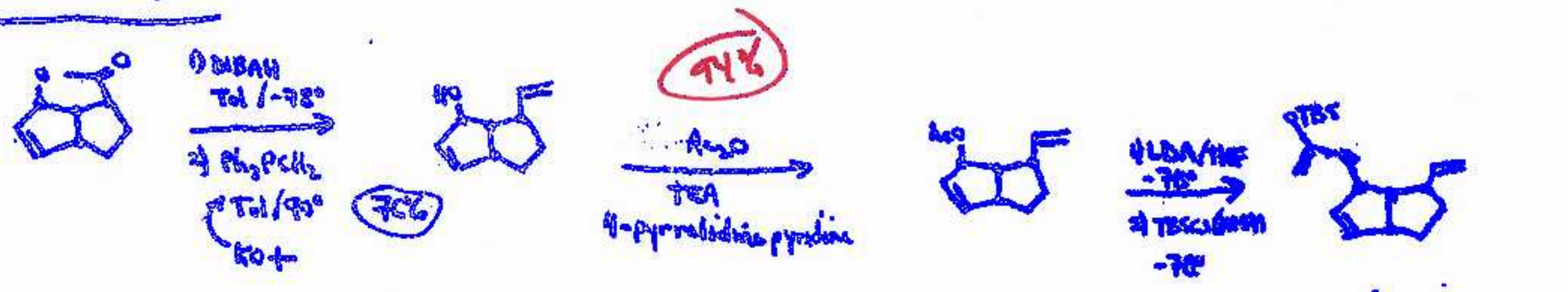
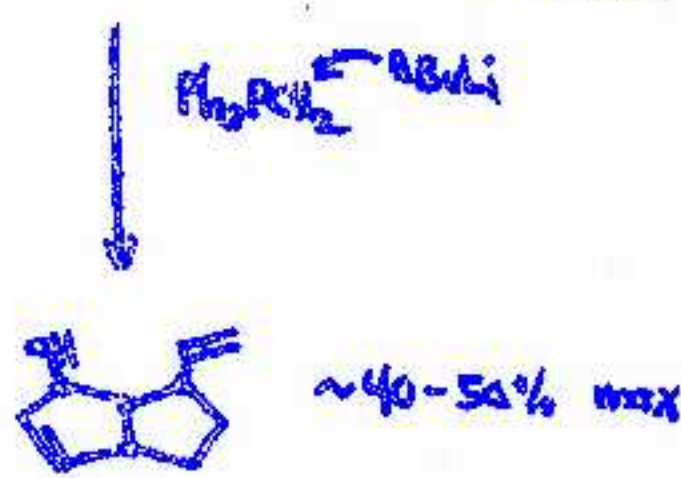
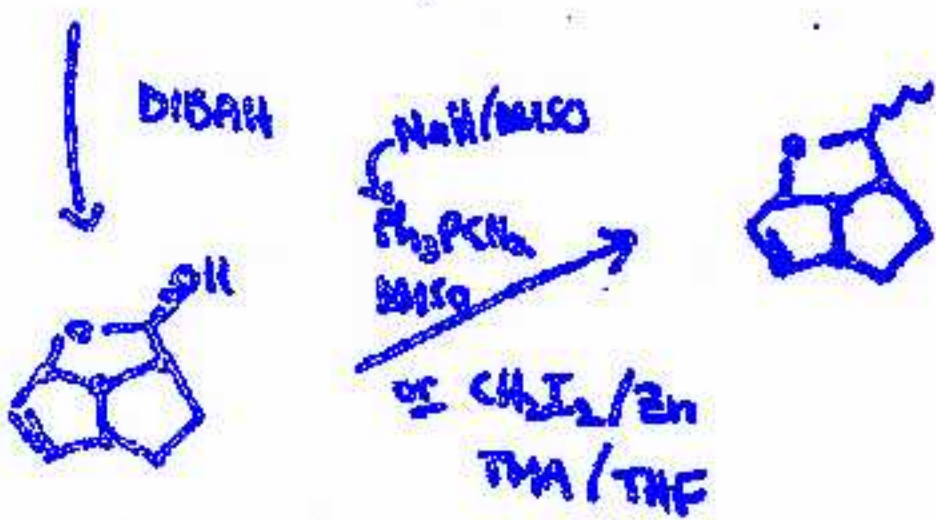
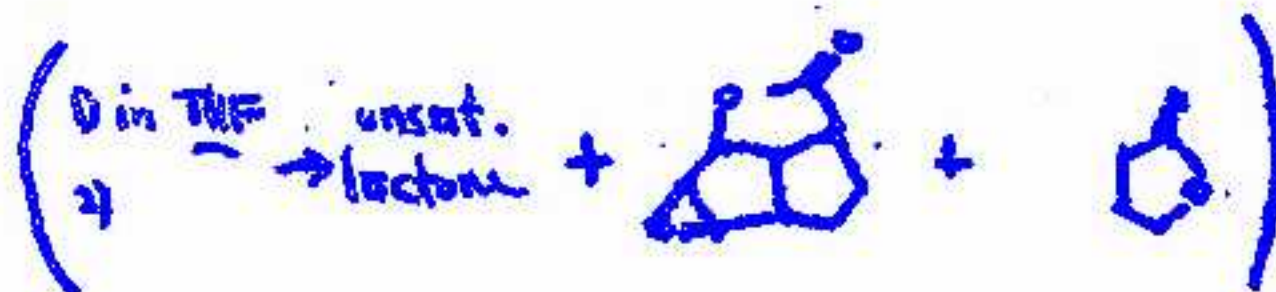
Old Chemistry:

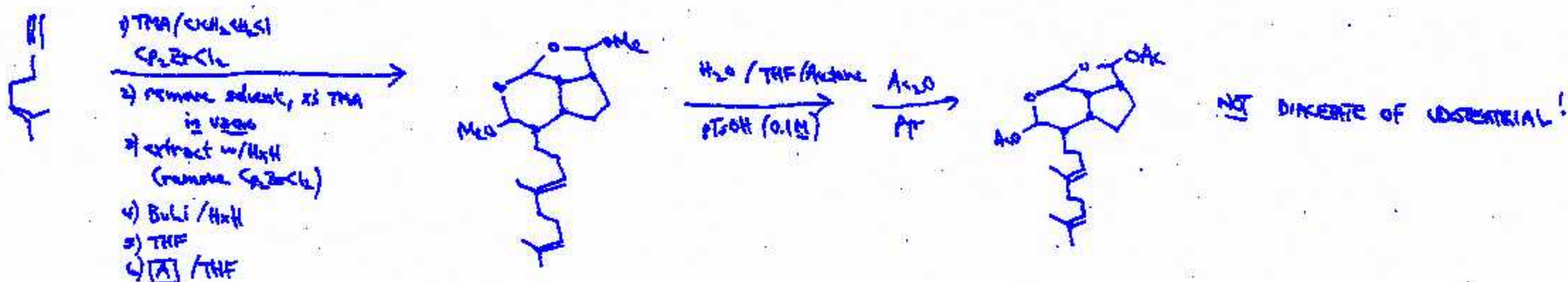
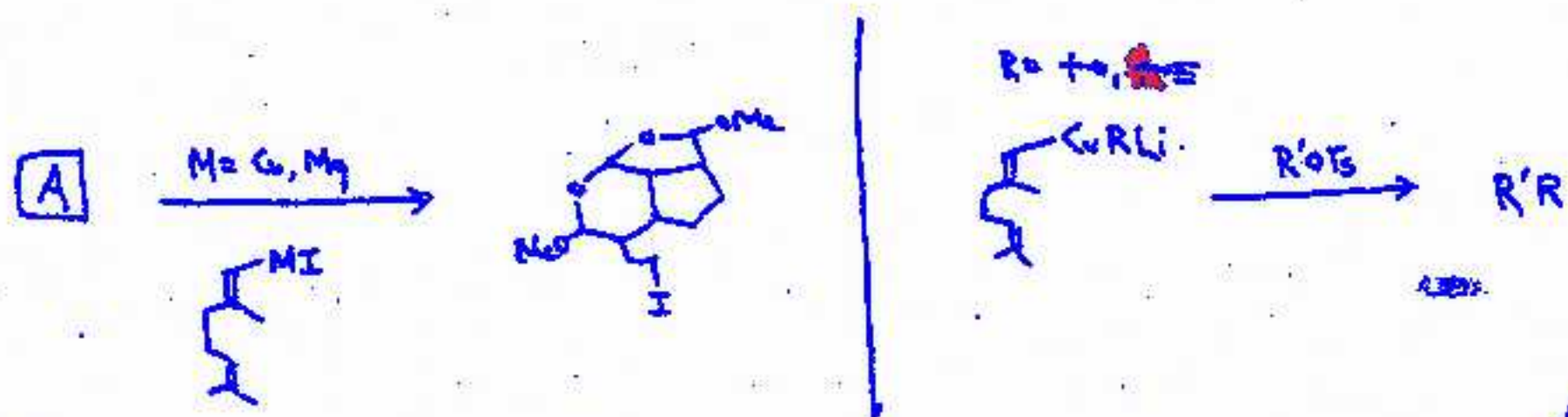




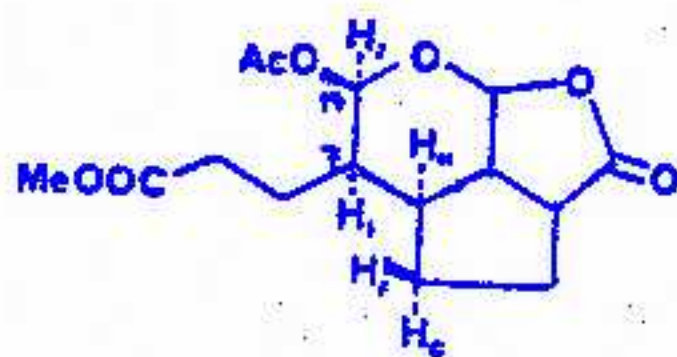


71%





II. Revised Structure



"Irradiation of the acetate methyl signal gave a positive nuclear Overhauser enhancement (NOESY)¹¹ of the signal at δ 1.41 due to proton F, indicating that the acetate group must be positioned above the cyclopentane ring. A small coupling constant (~ 1 Hz) indicated that the dihedral angle between protons I and J must be in the range $80-100^\circ$." \rightarrow I and J are cis

| H | shift, δ | multiplicity; J, Hz (coupled signal) ^a |
|-------------------|-----------------|---|
| F | 1.41 | m; 13 (E), 13 (G), 11 (H), 6 (D) |
| \rightarrow G | 2.16 | m; 13 (F), 8 (E), 7 (H), <1* (D) |
| H | 2.22 | m; 11 (F), 10 (B), 9 (I), 7 (G) |
| I | ~ 1.75 | not resolved |
| \rightarrow OAc | 2.12 | s (NOE to F) |

1) Acetate too mobile to impart NOE

2) observed NOE due to irradiation of H₆

3) coupling constant between H-I of 9 Hz indicates trans.

So: stereochemistry at C-7 and C-19 inverted

III. Udozatriol

