A General Entry to Antifeedant Sesterterpenoids: Total Synthesis of (+)-Norleucosceptroid A, (–)-Norleucosceptroid B, and (–)-Leucosceptroid K

C. L. Hugelshofer and T. Magauer*

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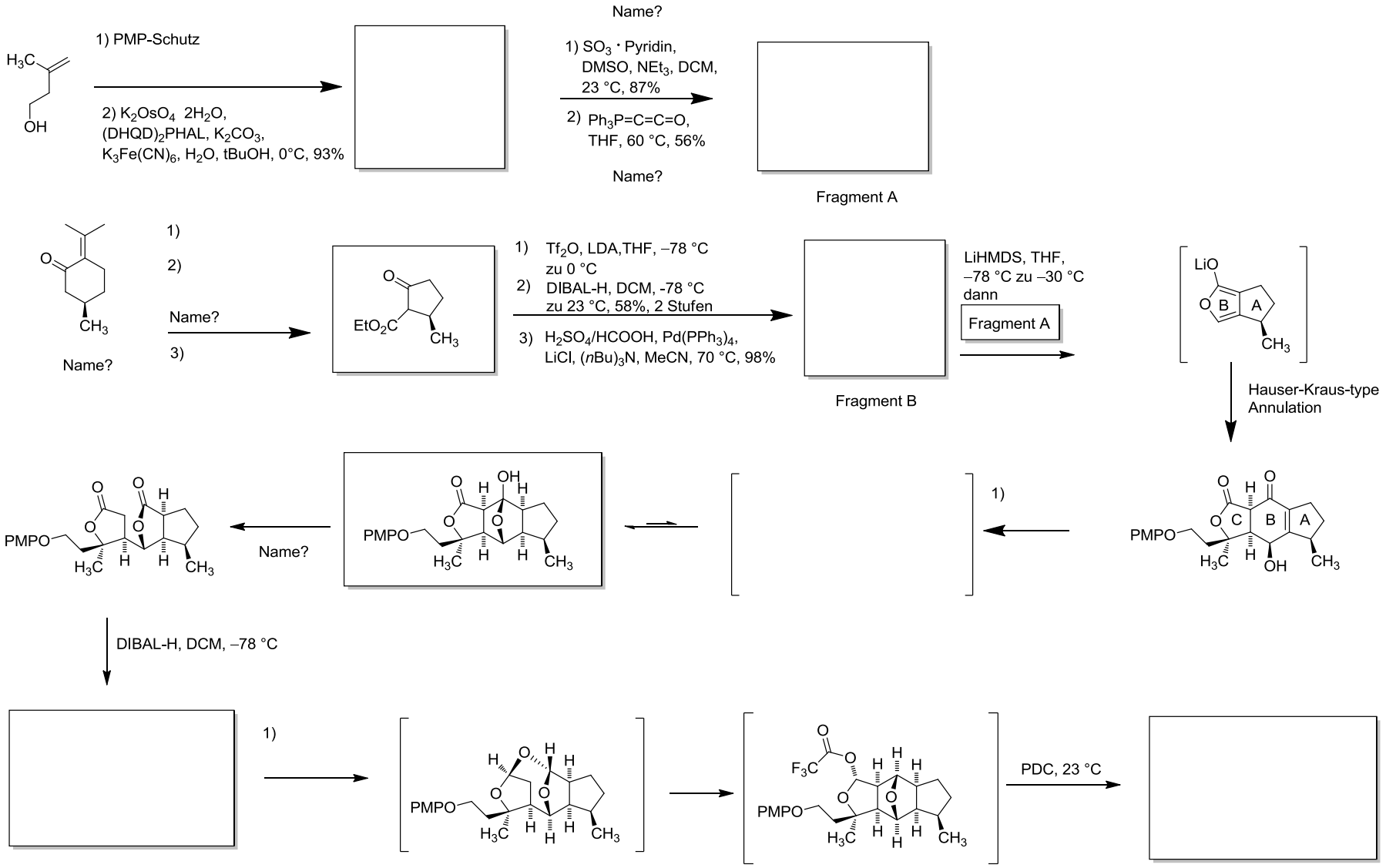

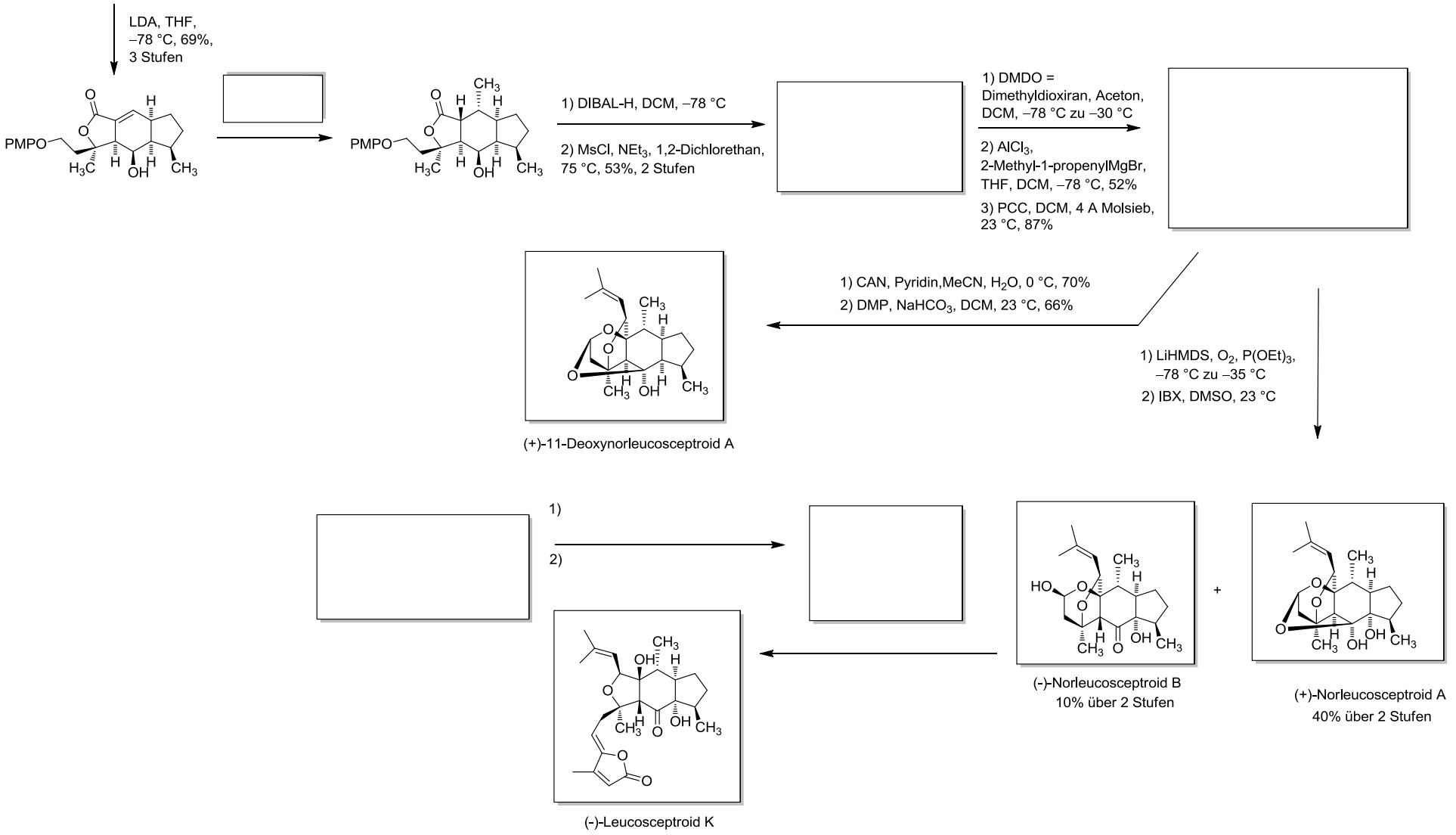
LDA, THF,
–78 °C, 69%,
3 Stufen
PMPO
1) DIBAL-H, DCM, –78 °C
2) MsCl, NEt3, 1,2-Dichlorethan,
75 °C, 53%, 2 Stufen
1) DMDO =
Dimethyldioxiran, Aceton,
DCM, –78 °C zu –30 °C
2) AlCl3,
2-Methyl-1-propenylMgBr,
THF, DCM, –78 °C, 52%
3) PCC, DCM, 4 A Molsieb,
23 °C, 87%
1) CAN, Pyridin,MeCN, H2O, 0 °C, 70%
2) DMP, NaHCO3, DCM, 23 °C, 66%
(+)-11-Deoxynorleucosceptroid A
1) LiHMDS, O2, P(OEt)3,
–78 °C zu –35 °C
2) IBX, DMSO, 23 °C
1)
2)
(-)-Norleucosceptroid B
10% über 2 Stufen
+
(+)-Norleucosceptroid A
40% über 2 Stufen
(-)-Leucosceptroid K