

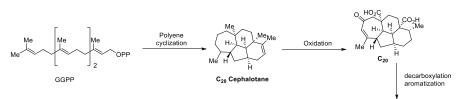
SOLUTION

Asymmetric Total Synthesis of Cephanolide A

Zhang, H.; He, H.; Gao, S. Angew. Chem. Int. Ed. 2020 DOI: 10.1002/anie.202009562



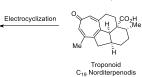
- Polycyclic terpenoids: drug discovery
- Cephalotaxus diterpenoids: unique structural features and potential biological activities
- tetracyclic carbon skeleton (A-B-C-D ring)
-bridging lactone
-tetrahydrofuran ring



C₁₉

CO₂H





Synthesis of common precursor first step HO CO₂Me HO. -OH 1) DIBAL-H HO, CO₂Me Ét₂O -78 ℃ to 0 ℃ Ac₂O, DMAP (-) quinic acid derivative Hünig's base .OMe HO HO, 0 ō. 2) NalO₄ ,OMe DCM, 0 °C, 1 h ,,OMe .OMe OF HO, PTSA, MeOH ō. ō. `Me MeO Ō. H₂O, rt `Me `Me `Me Ōн (reflux), 1 h MeO MeOMe Meo Me Ме 18

Johnson's procedure

