

Total Synthesis of Annotinolide B via Sequential Quinoline Dearomatization

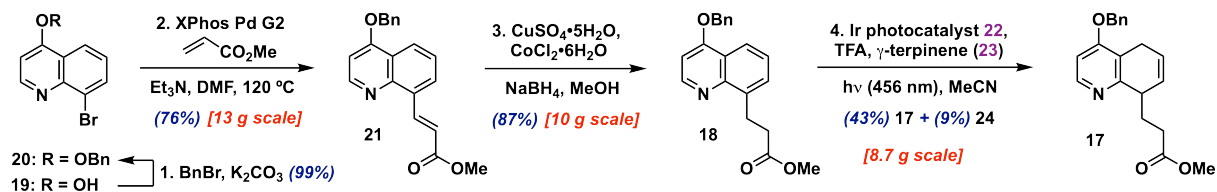
Bhawyanth Duvvuru and Myles W. Smith*



Lycopodium alkaloid

Heck reaction

slightly modifying conditions reported by the Ma group

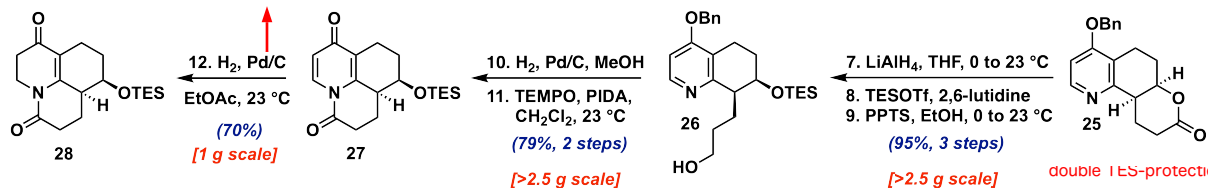


20: R = OBn
 19: R = OH

5. K_2CO_3 , H_2O , 100 °C; NIS, CH_2Cl_2 , 23 °C
 6. $(\text{TMS})_3\text{SiH}$, AIBN, PhMe, 80 °C (78% based on 17, 2 steps)

the only condition after screening

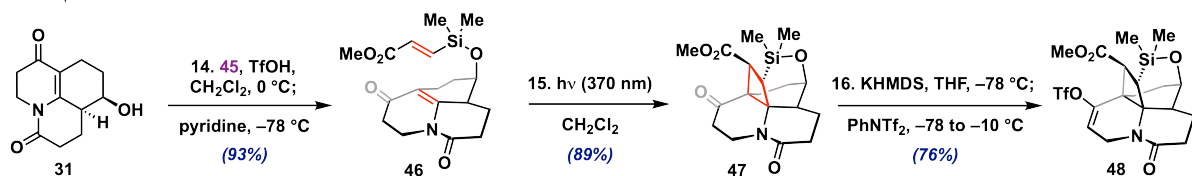
by-products



double TES-protection, followed by

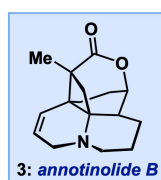
13. HF-pyr., THF, 0 to 23 °C (95%) [1 g scale]

oxidative cyclization



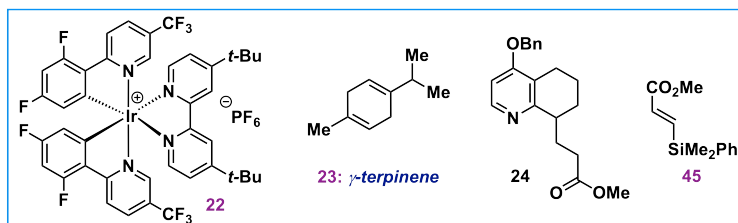
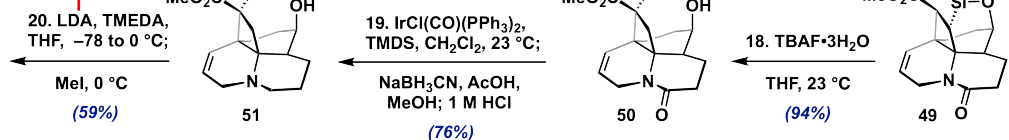
TMS ether u free alcohol crucial

20 total steps
 2.7% overall



crucial

Vaska's catalyst



phenyl protodesilylation

