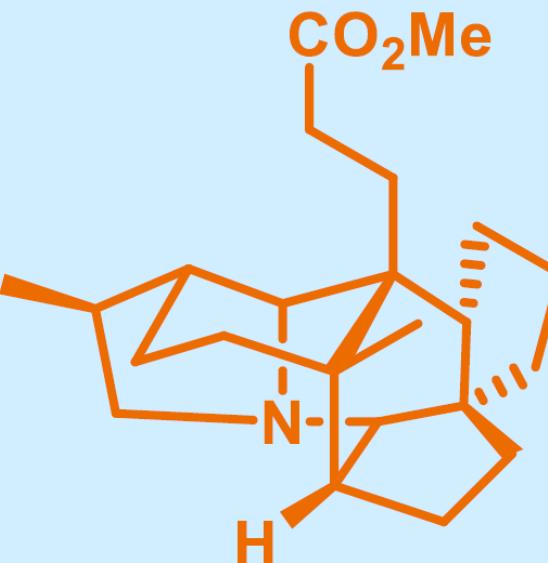


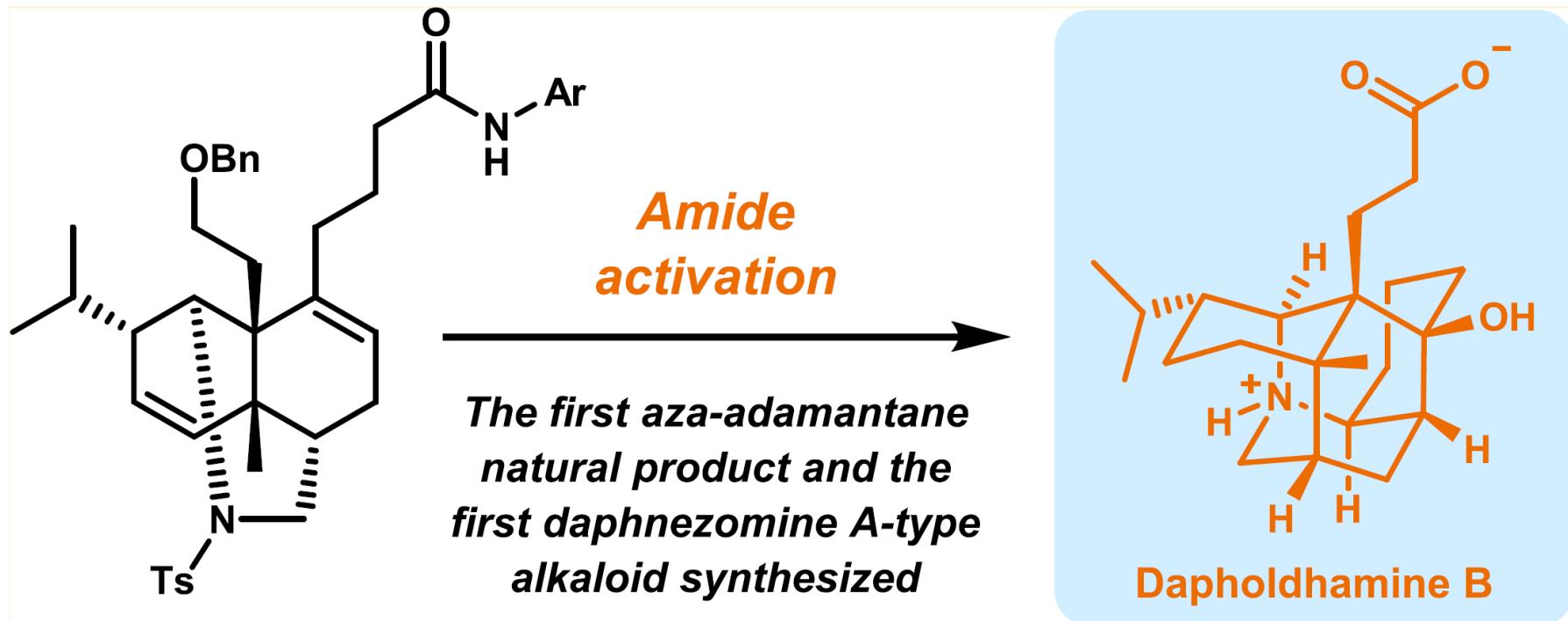
Enantioselective Total Synthesis of (-)-Caldaphnidine O via a Radical Cyclization Cascade

Lian-Dong Guo, Jingping Hu, Yan Zhang, Wentong Tu, Yue Zhang, Fan Pu,
and Jing Xu*



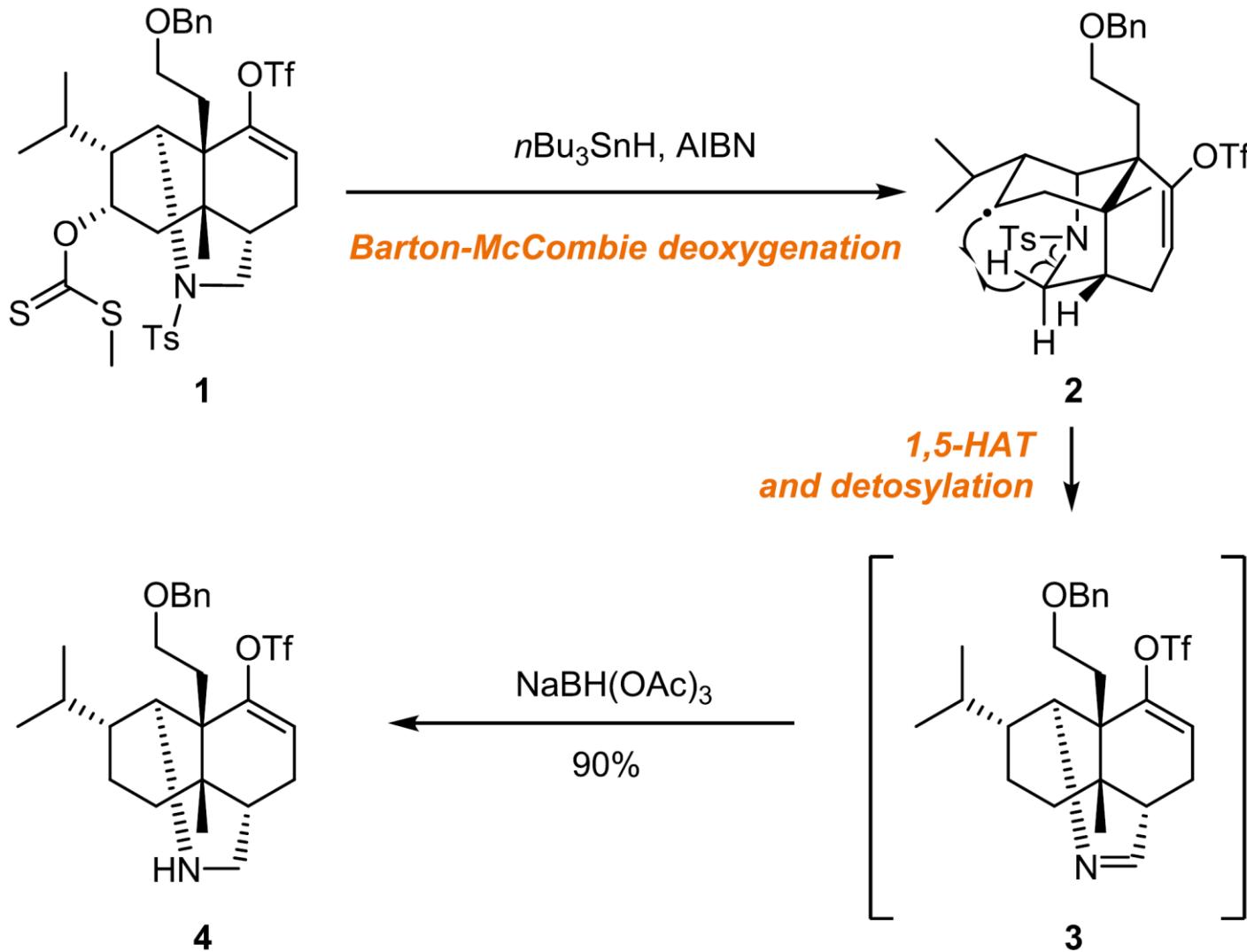
Caldaphnidine O

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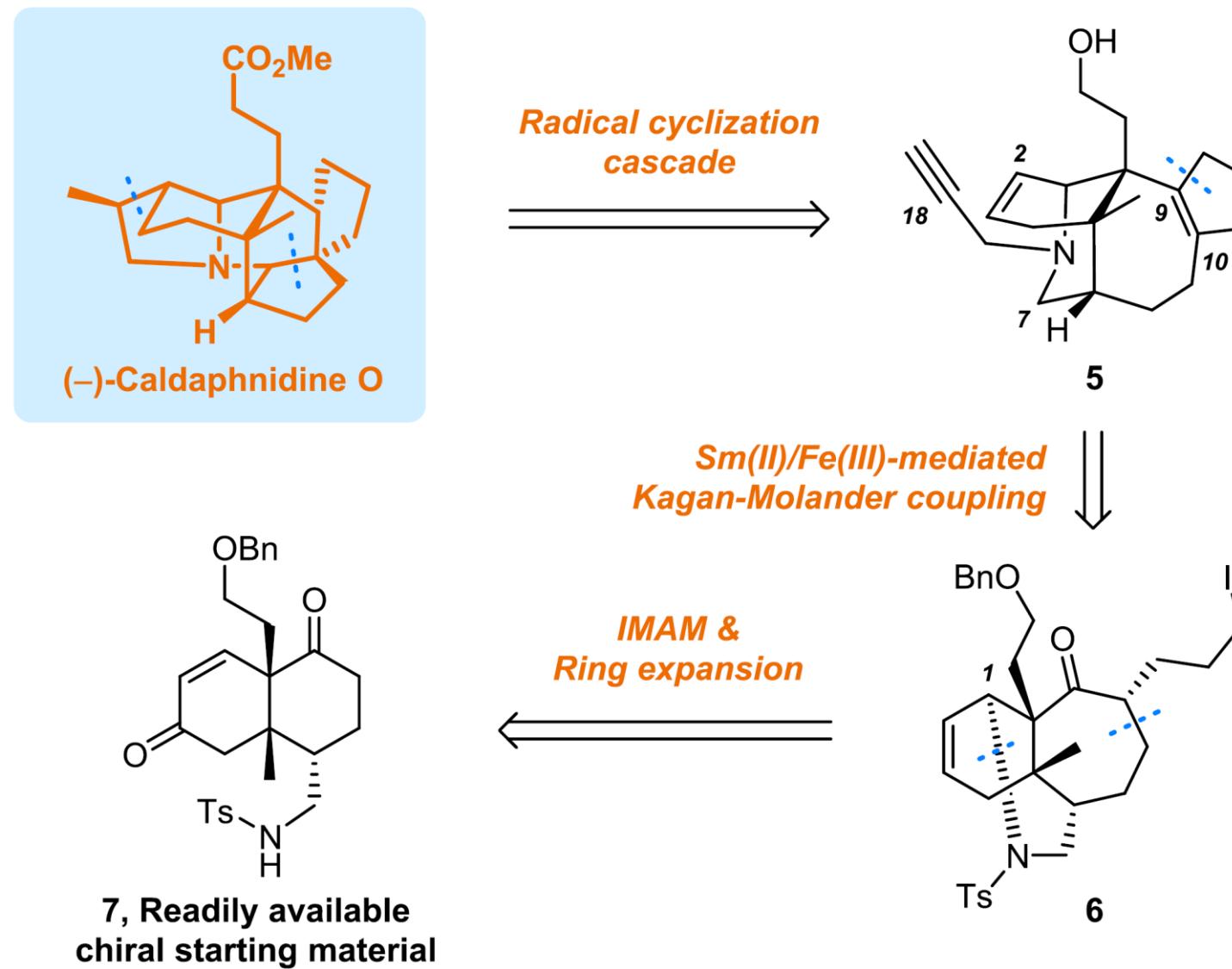


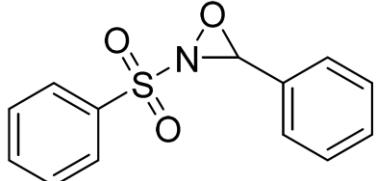
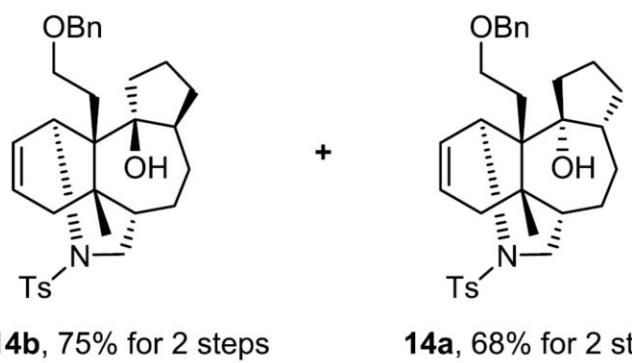
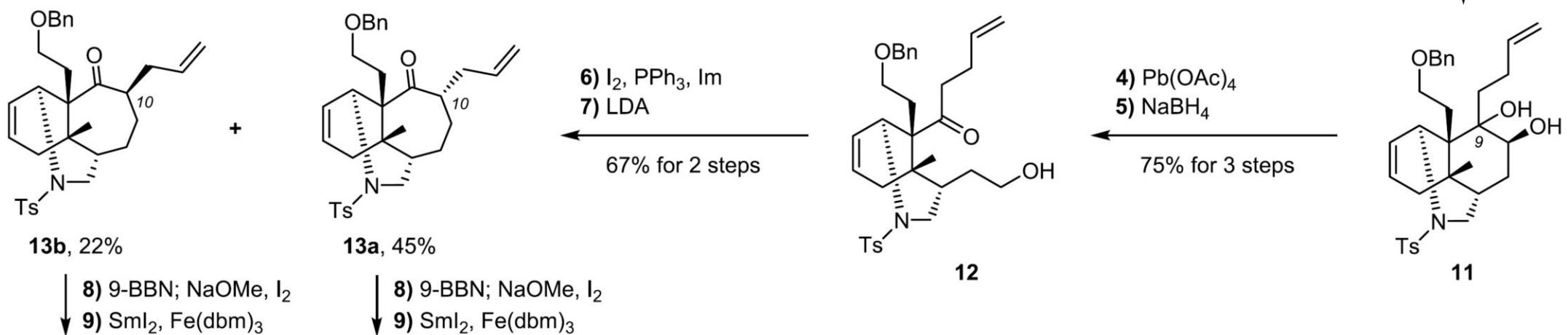
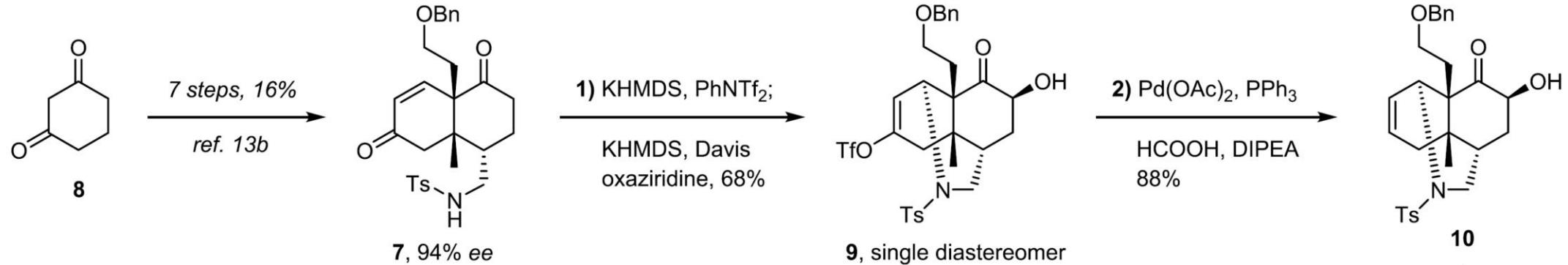
Key Inspiration:

An unexpected detosylation triggered by a Barton-McCombie deoxygenation

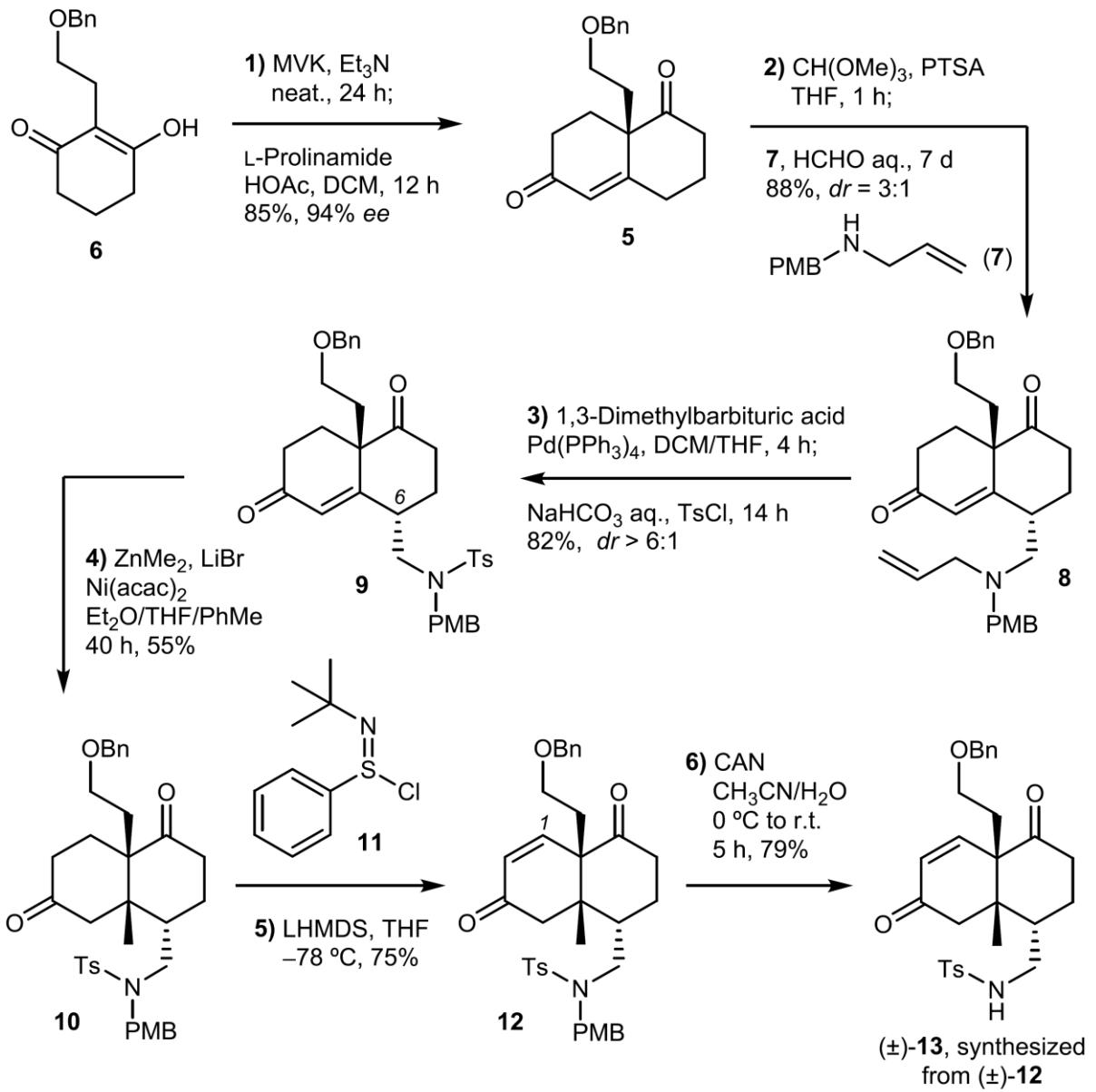


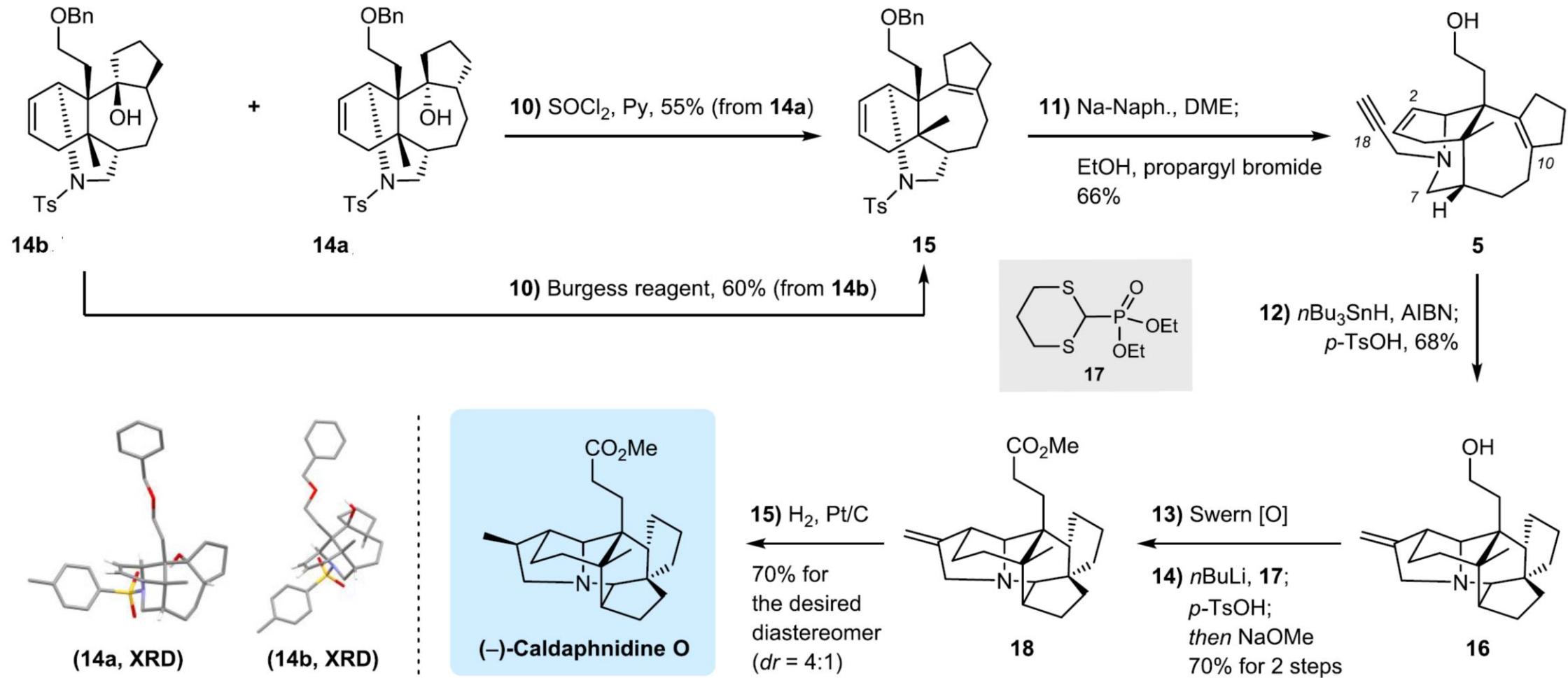
Retrosynthetic analysis of the bukittinggine-type alkaloid (–)-caldaphnidine O

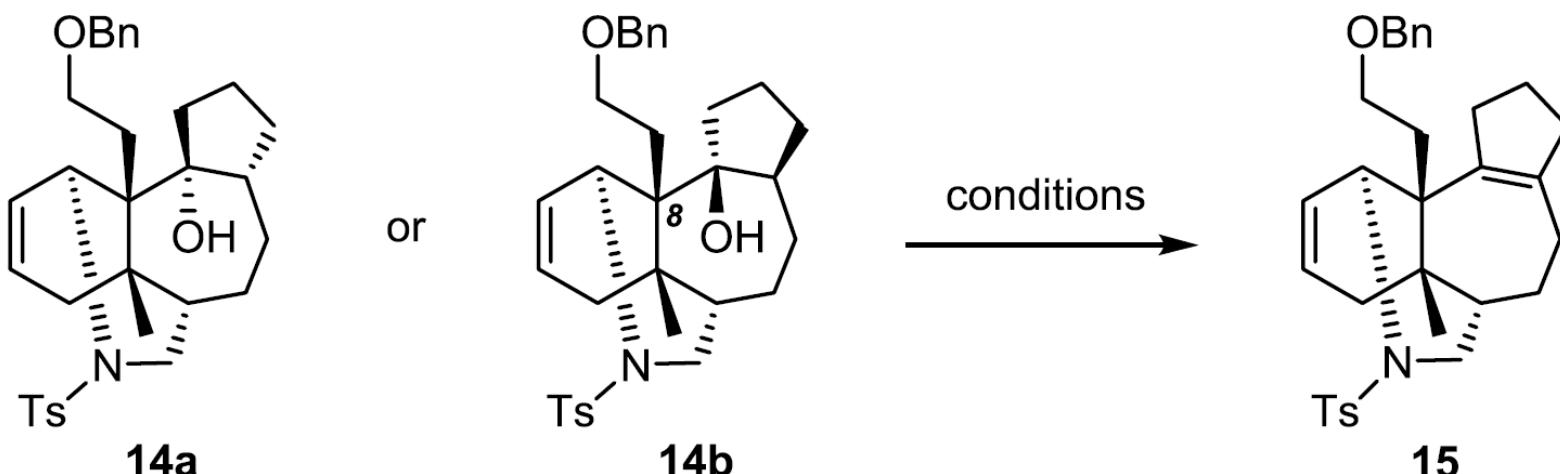




Davis oxaziridine







entry ^a	compound	conditions	15 (%)^b
1	14a	<i>p</i> -TsOH, PhMe, 90 °C, 3 h	35
2	14b	<i>p</i> -TsOH, PhMe, 90 °C, 1 h	20 ^c
3	14a	SOCl ₂ , Py, 0 °C to r.t., 1 h	62
4 ^d	14a	SOCl ₂ , Py, 0 °C to r.t., 1 h	55
5	14b	SOCl ₂ , Py, 0 °C to r.t., 1 h	trace ^c
6	14a	Burgess reagent, CH ₃ CN, 70 °C, 1.5 h	trace ^c
7	14b	Burgess reagent, CH ₃ CN, 70 °C, 1.5 h	57
8 ^d	14b	Burgess reagent, CH ₃ CN, 70 °C, 1.5 h	60