

[illegible]

11. LDA, HMPA
8, THF
-78 °C to rt
70%

12. Grubbs II
toluene, 110 °C
89%

13. KHMDS, THF
Davis' ox., -78 °C
72%

14. $\text{O}=\text{C}=\text{C}=\text{PPh}_3$
m-xylene, 160 °C
87%

15. Pd/C, H_2
EtOAc
then CSA
90%

16. DMP
DCM
85%

17. $\text{PPh}_3\text{CH}_2\text{Br}$
KO^tBu, THF
91%

18. Pt(dba)₃
(S, S)-L
 $\text{B}_2(\text{pin})_2$, THF
then NaBO₃
(S, S)-L
19. TBSCl, imid.
83% overall
Morken's Pt-catalyzed
enantioselective diboration/oxidation

20. MsCl, Et₃N
4-DMAP
21. Pd/C, H_2
EtOH/THF
22. Cs₂CO₃
23. CSA
74% overall
avoid premature desilylation

24. BocO, CO_2Me (22)
(S)-Ir-BINAP
Cs₂CO₃, THF
72%

25. $\text{Ru}_3(\text{CO})_{12}$
Et₃N
1,4-dioxane
100 °C
81%

(+)-rubiifordilactone A (1)

