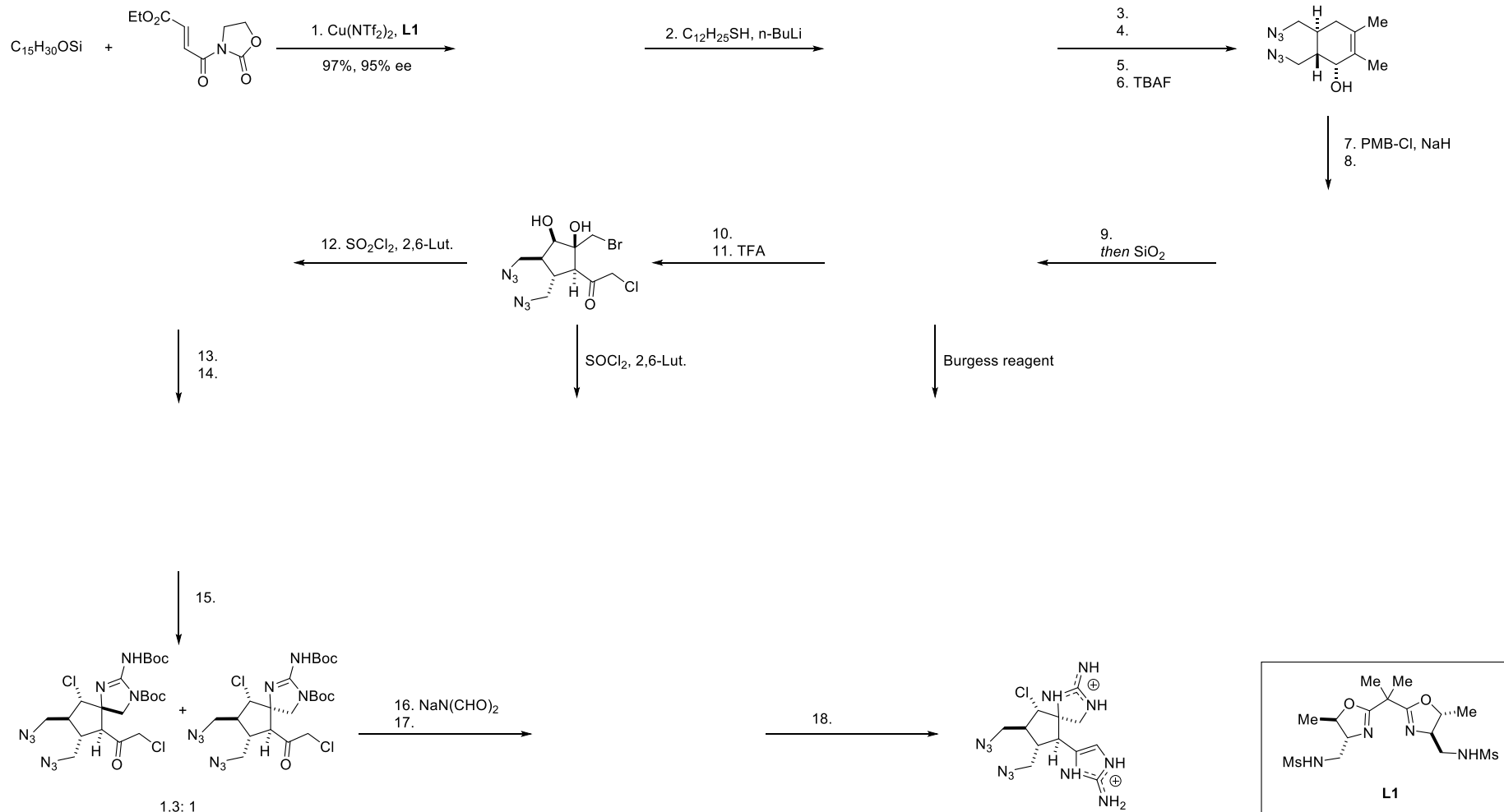
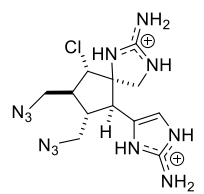


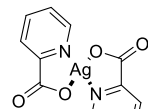
# EX223: Total Synthesis of Palau'amine, Axinellamines and Massadines



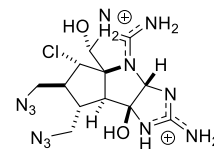
I. B. Seiple, S. Su, I. S. Young, A. Nakamura, J. Yamaguchi, L. Jørgensen, R. A. Rodriguez, D. P. O'Malley, T. Gaich, M. Köck and P. S. Baran, *JACS*, **2011**, 133, 14710-14726



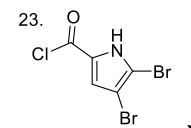
19.  
20.



21. 10% TFA in H<sub>2</sub>O

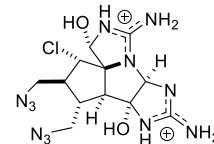


22. HS(CH<sub>2</sub>)<sub>3</sub>SH

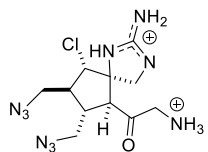


(-)-Axinellamine A

Mechanism for 22?



(-)-Axinellamine B

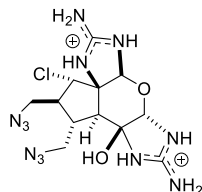


24.

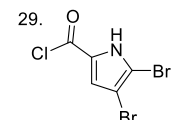
25.



26.  
27.

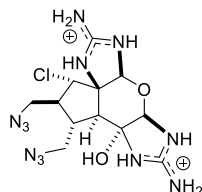


28.

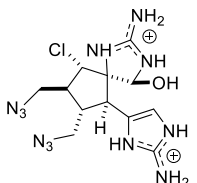


(-)-massadine

30. H<sub>2</sub>O



6,10-*epi*-massadine



31. TFAA, Br<sub>2</sub>  
32. AcOH, **A**  
33.

Mechanism for 32?

34.  
35. EDC  
36. TFA

→ (-)-palau'amine

