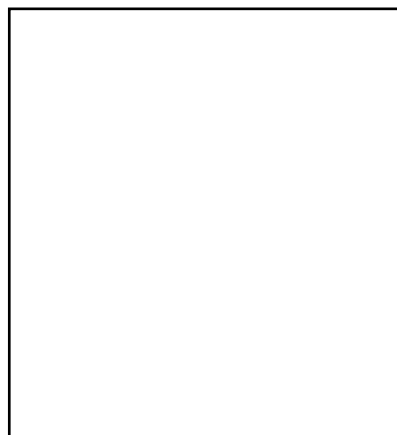
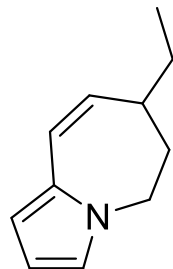


Total Synthesis of Binolamine I

Yama-Orita and Hayashi, *J. Org. Chem.* 2002, 67, 12638-12641.



Come from a family of polypyrrole alkaloids

Bipolamines were found in a gene cluster known as

ATCC48331

Bipolamines could have potential as antimicrobial agents with an increase of antibiotic resistance

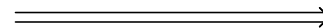
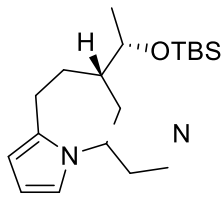
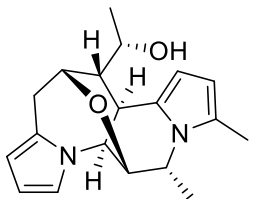
Pentacyclic structure and 7 stereogenic centers with 2 electron-rich pyrroles

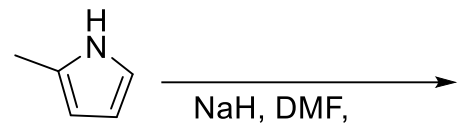
Jennifer LaPoff

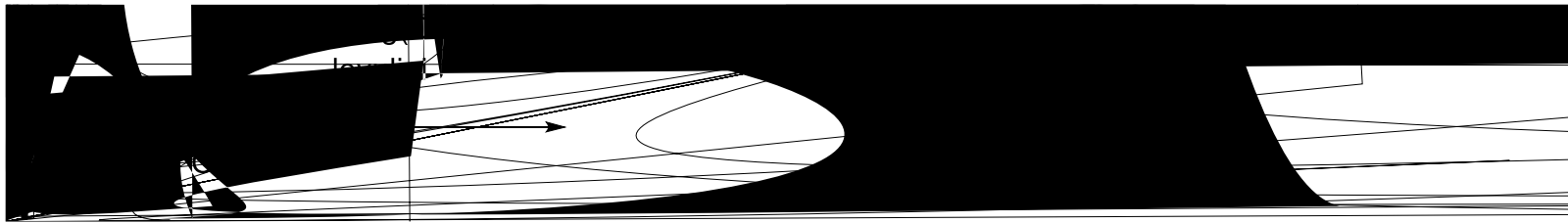
Liu Group

November 16th, 2022

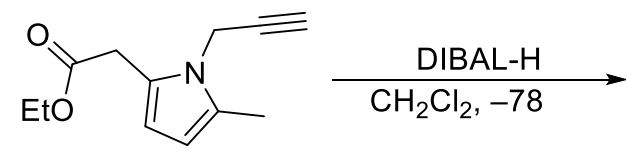
Retrosynthetic Analysis



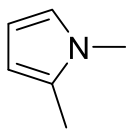




Paal-Knorr Pyrrole

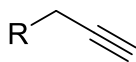


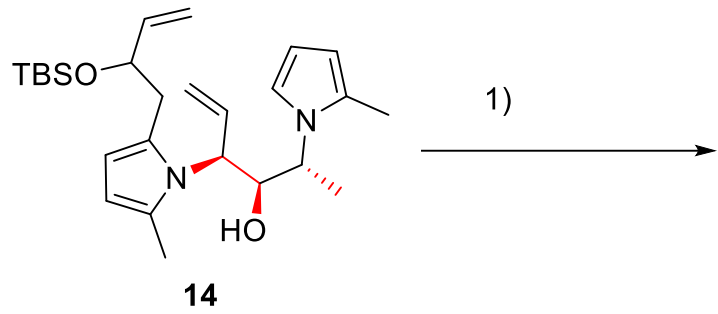
Lewis



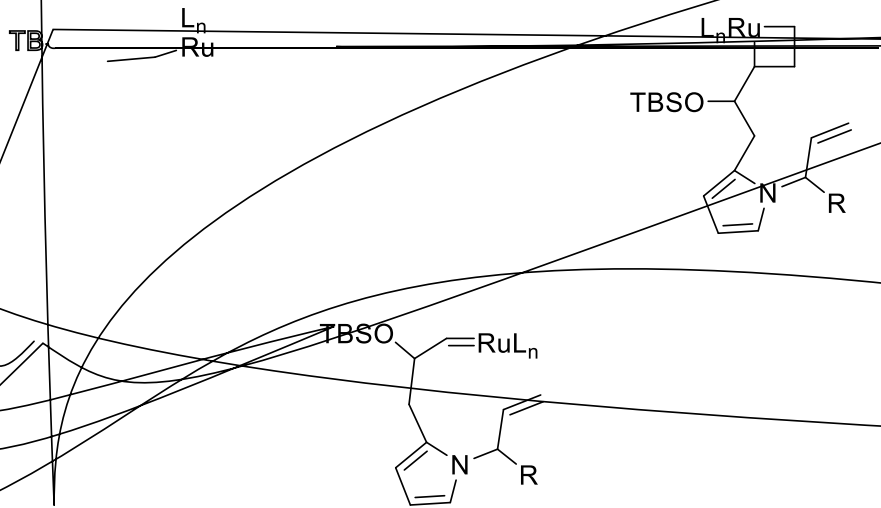
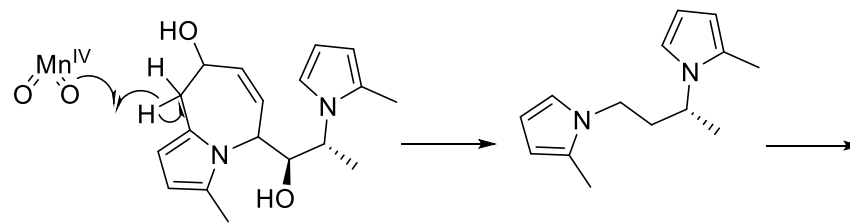
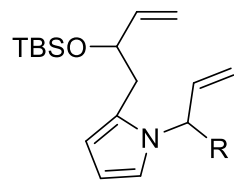
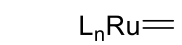
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anti-syn: anti-anti

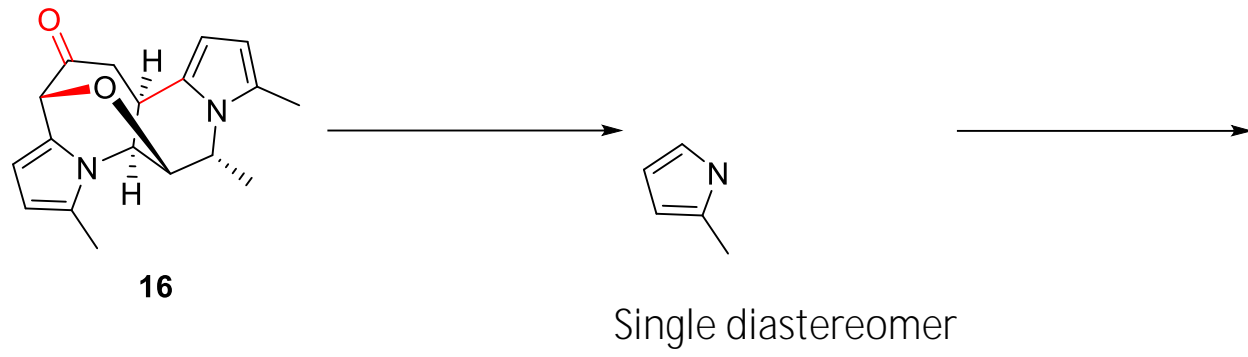
Krische's



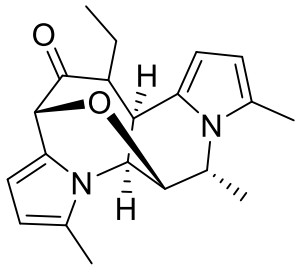


Single diastereomer

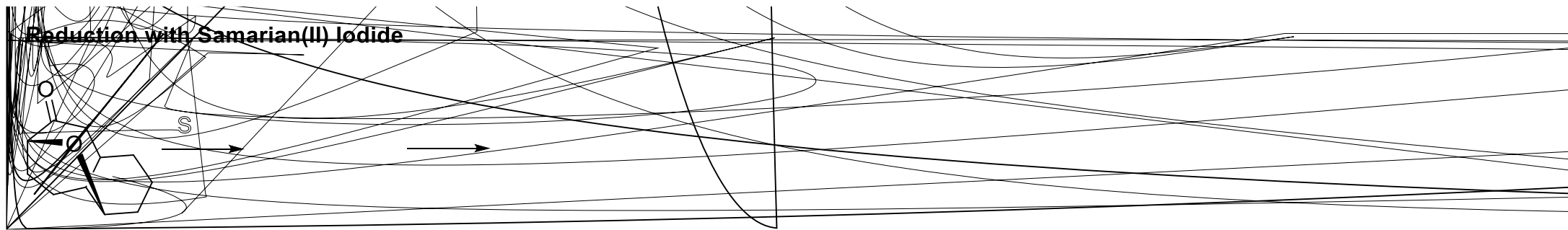




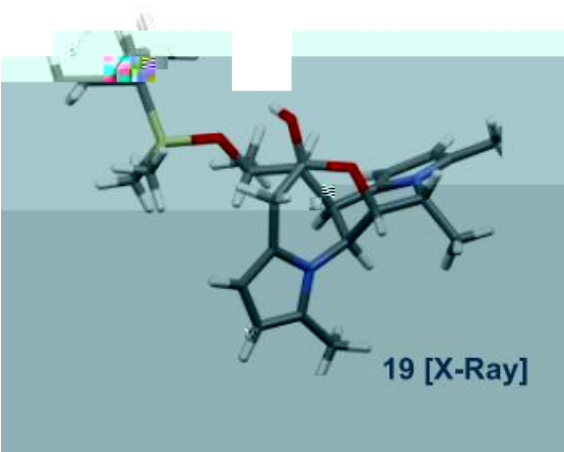
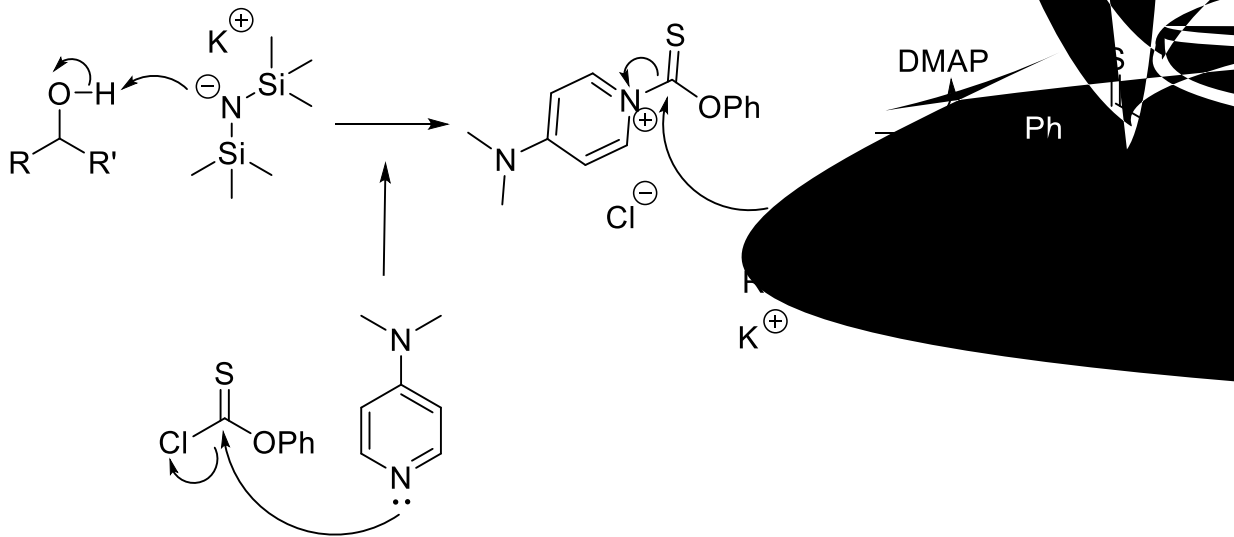
Lewis

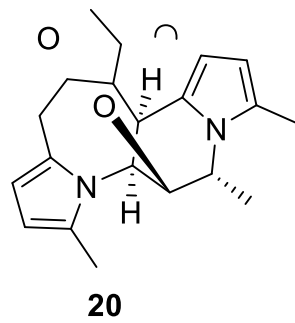


18



Thiocarbonation





15 steps overall