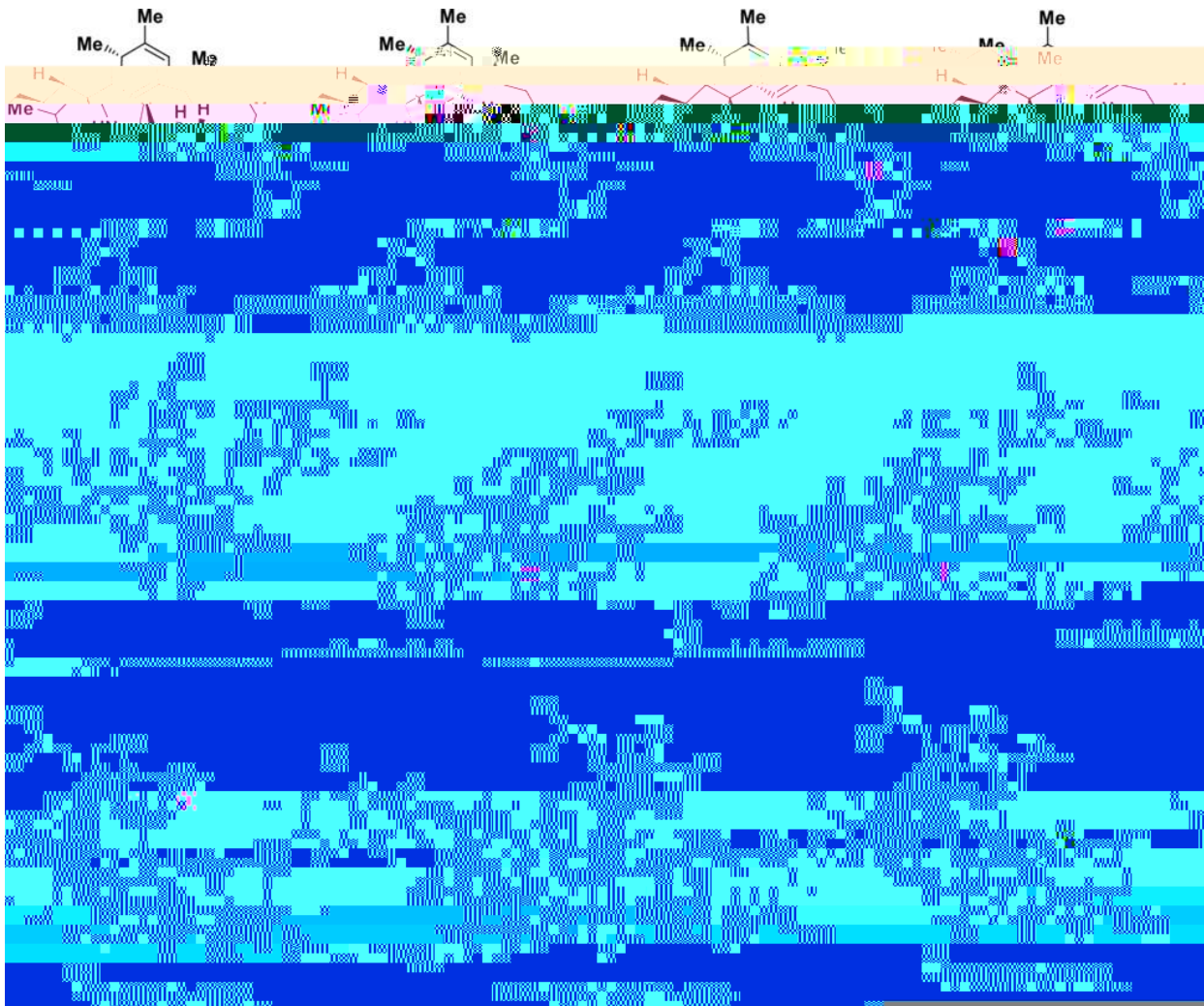


Total Syntheses of Asperchalasines A-E

Bao R. etc. *Angew. Chem. Int. Ed.* , 57, 14216



Asperchalasines is a collection of merocytchalasans from fermentation broth of *Aspergillus flavipes*

They are series of fungal secondary metabolites consisting of two types of subunits :

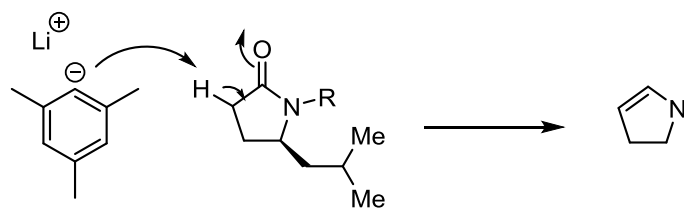
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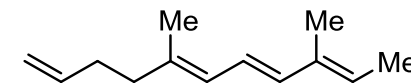
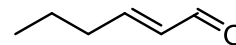
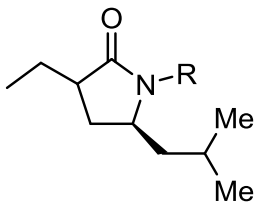
Some of



|

Sequential selenylation and oxidative elimination

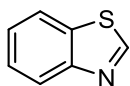


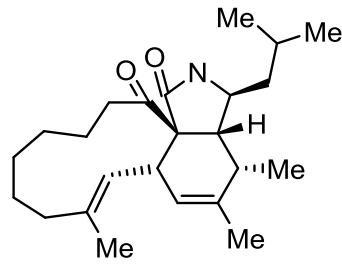


Sequential selenylation and oxidative elimination

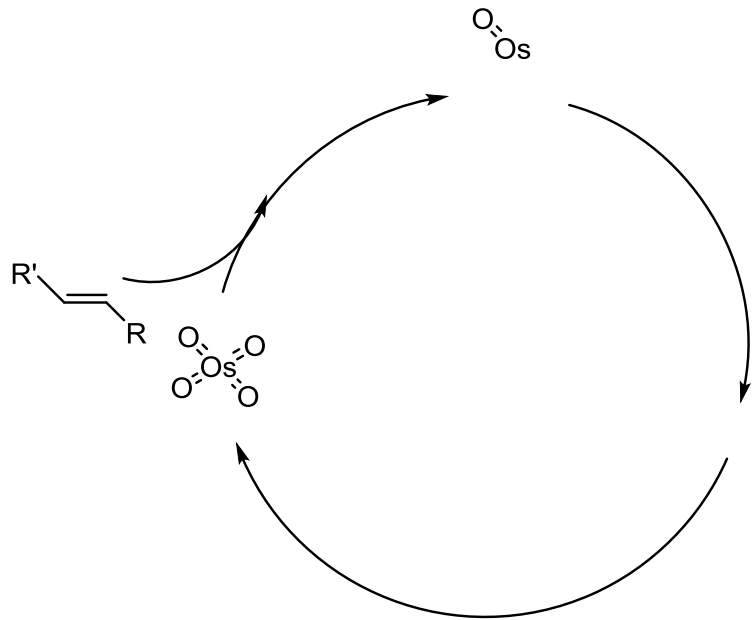


Julia Olefination

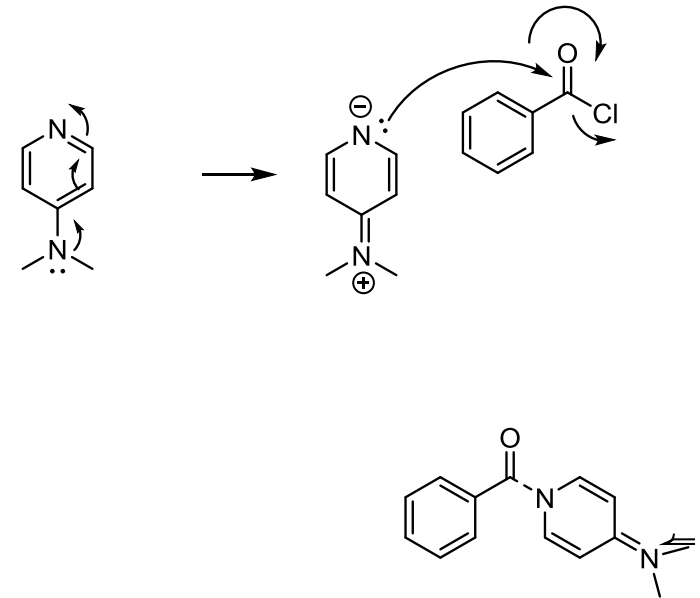


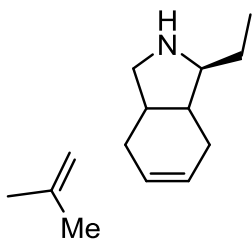


Upjohn dihydroxylation

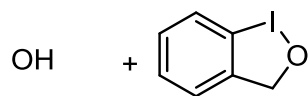


Selective 17-OH protection

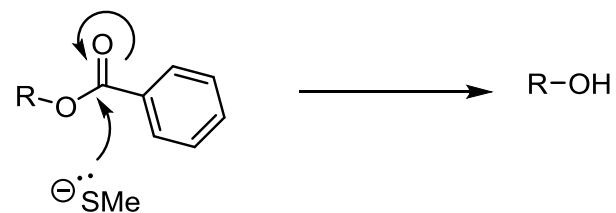




Dess-Martin Oxidation



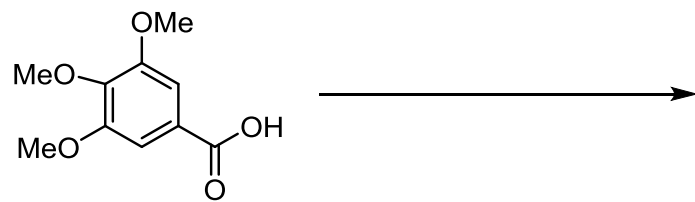
Benzoyl group deprotection



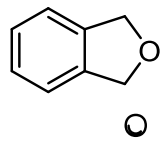
Another sequential selenylation and oxidative elimination:

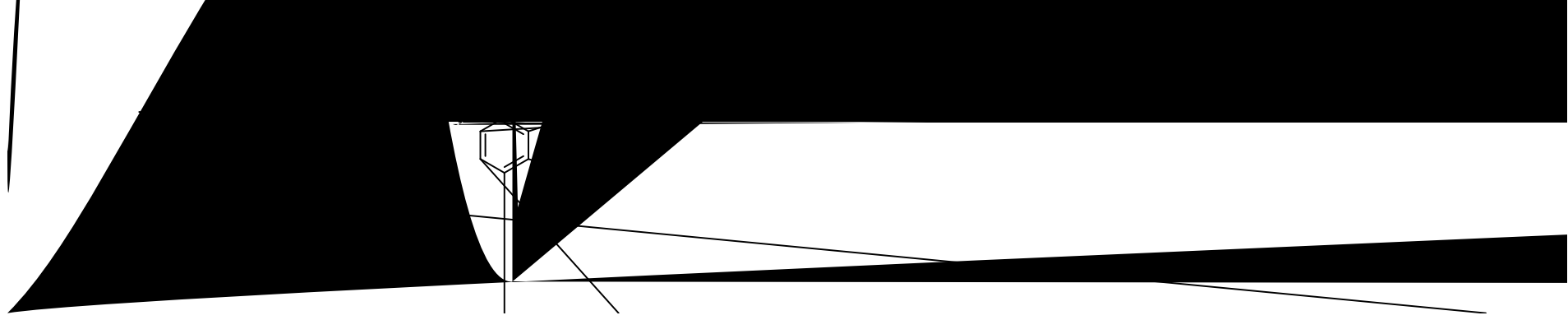
Forming unsaturated carbonyl (mechanism see before)

Syntheses of epicoccine part

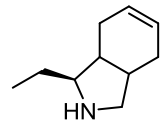


Blanc Chloromethylation and dechlorination





Finishing syntheses
Of asperchalasine A



Back-up mechanism of last page:

Diels-Alder reaction forming :



Hydrogenolysis of benzyl group:

