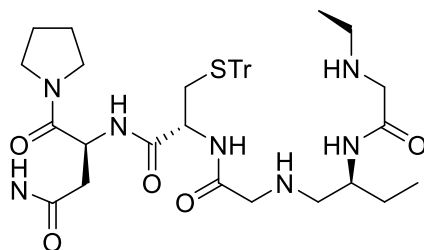


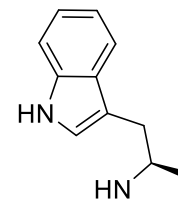
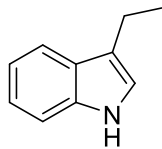
Synthesis of the Death-Cap Mushroom Toxin -Amanitin

Kaveh Matinkhoo, Alla Pryyma, Mihajlo Todorovic

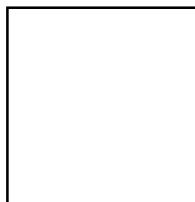
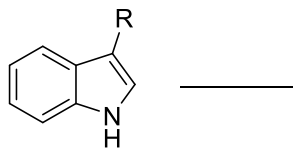
Retrosynthesis

O
H

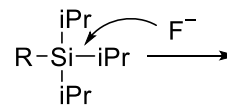




Silyl group protection



Silyl deprotection by fluorine

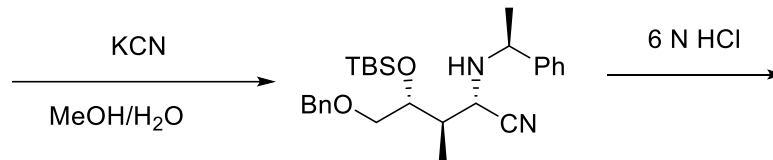
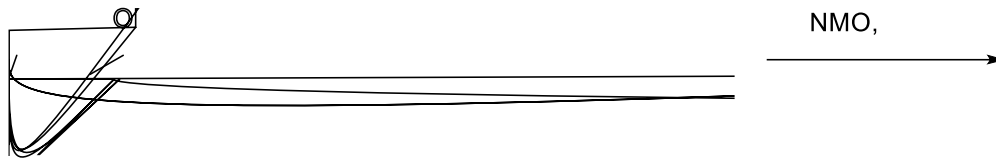


Ir-catalyzed C-H borylation

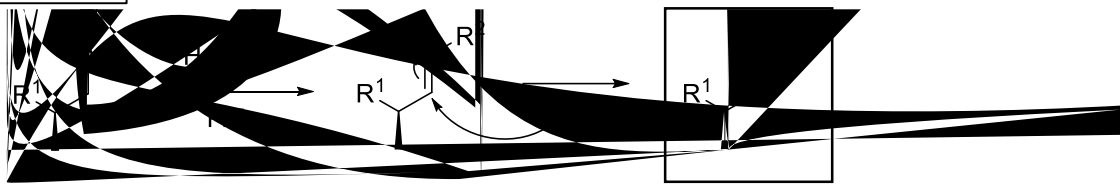


Trityl



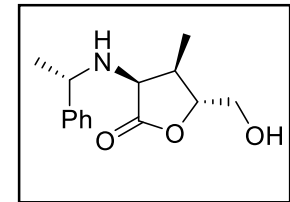
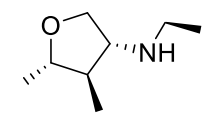


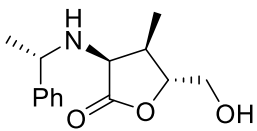
Imination-cyanation



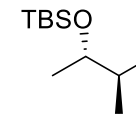
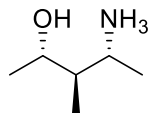
Lactonization

TBSO





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Pd-catalyzed benzylic deprotection

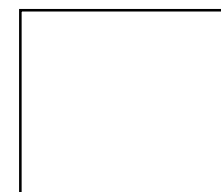
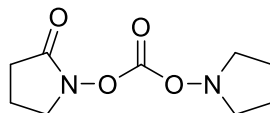


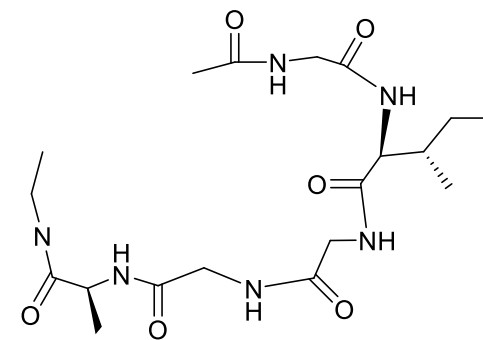
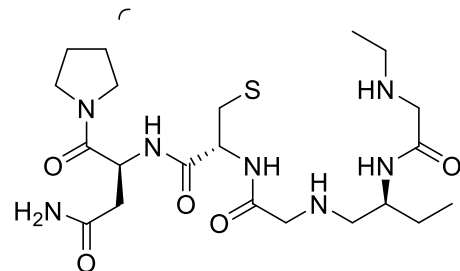
Fmoc protection

/



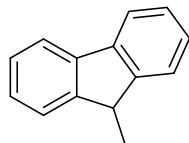
Succinimidyl activation



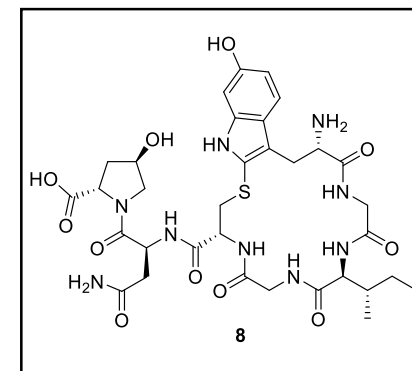
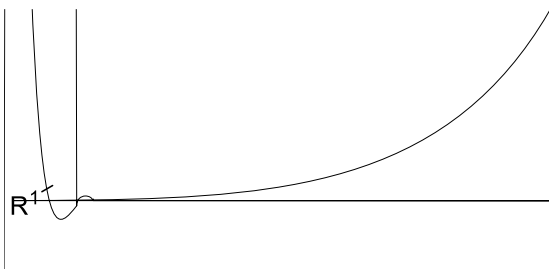


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-Amanitin

Fmoc deprotection



HATU amide coupling



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mCPBA sulfoxidation

