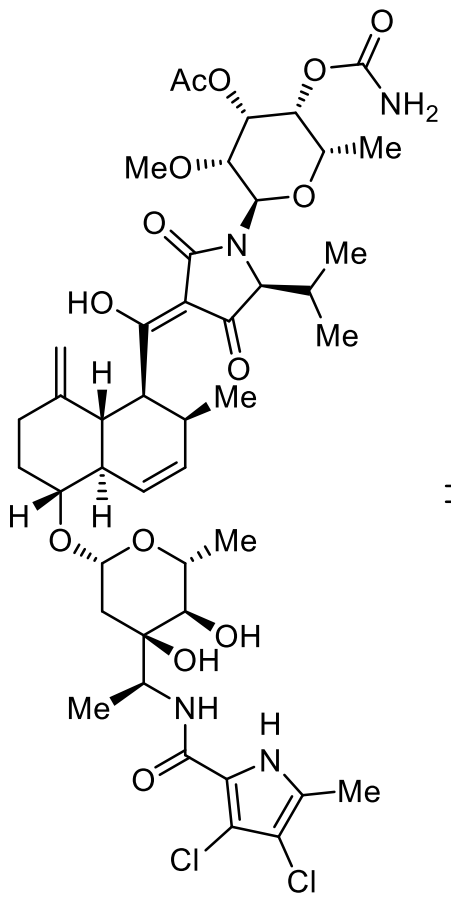
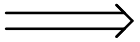
Total synthesis of broad-spectrum antibiotic:





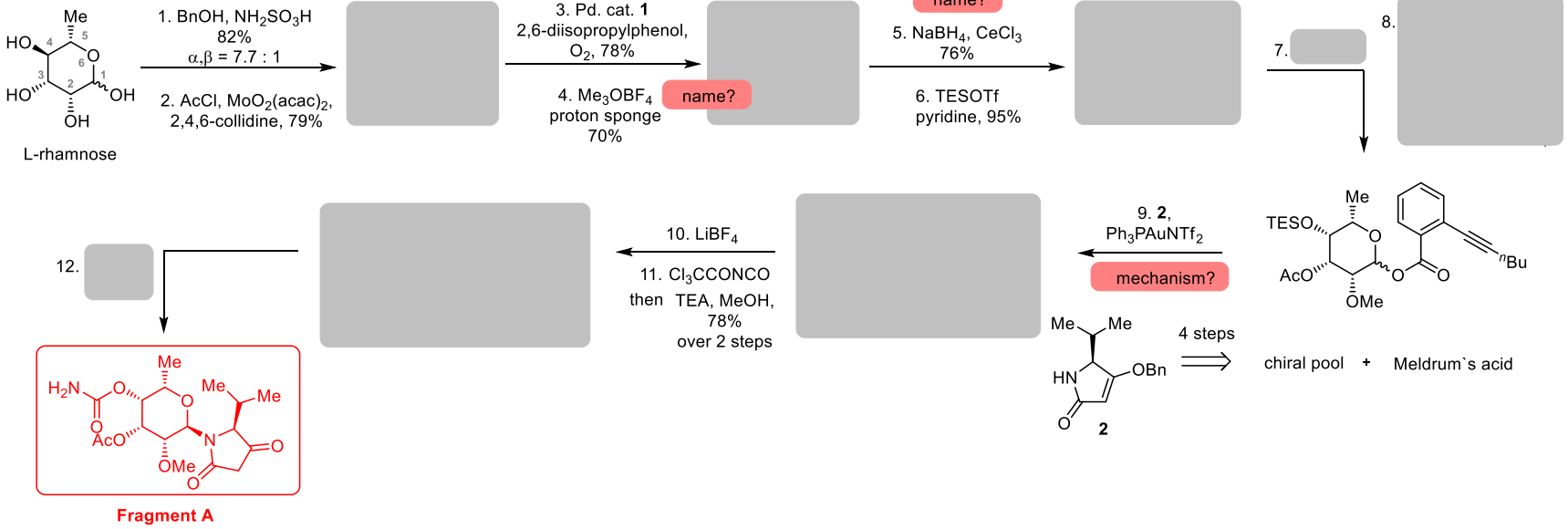
3 main fragments

(5 fragments in total)

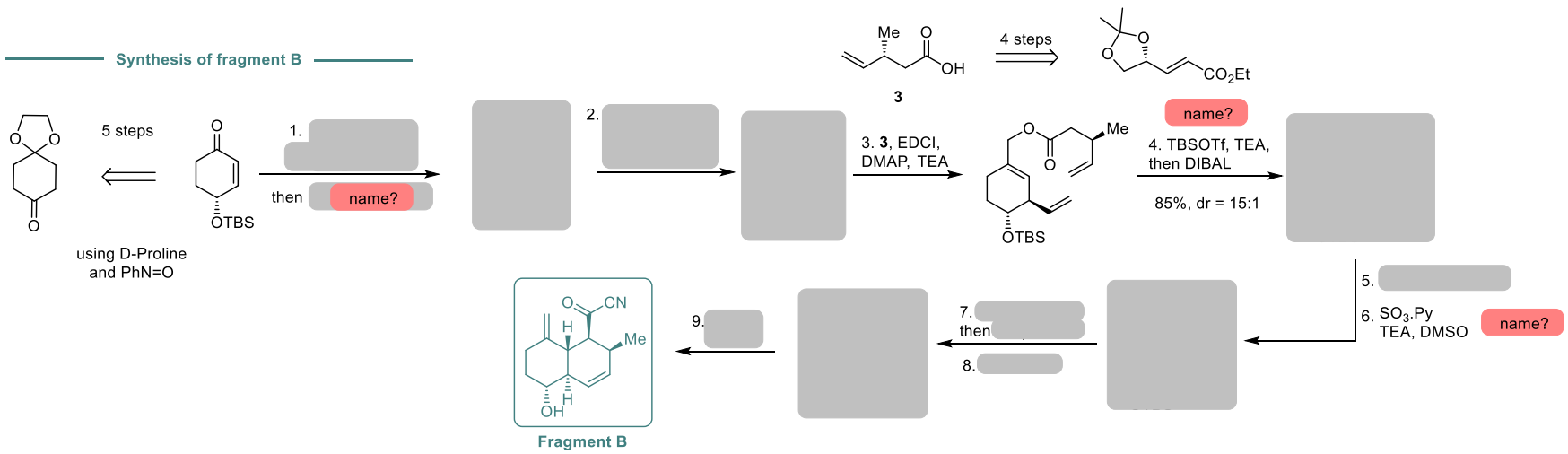
suggest disconnections

Fragments A, B and C

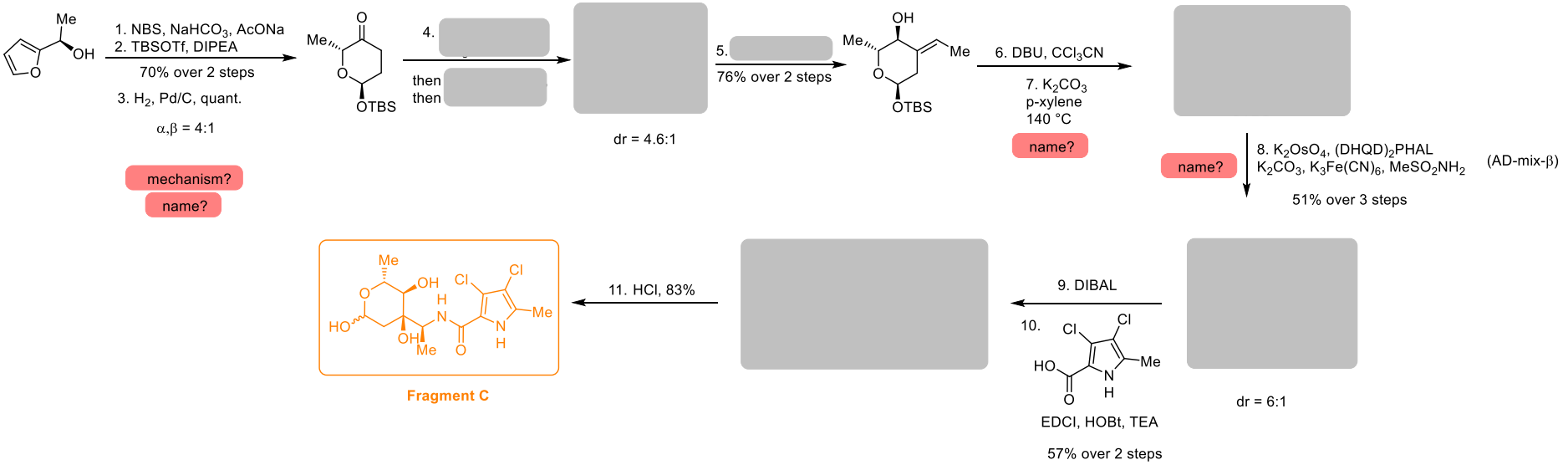
Synthesis of fragment A



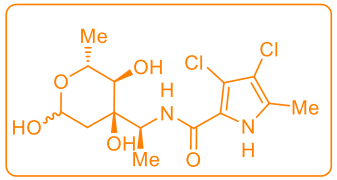
Synthesis of fragment B



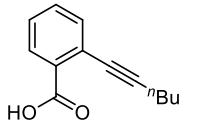
Synthesis fo fragment C



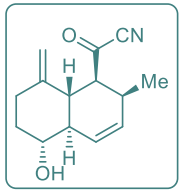
End game



Fragment C



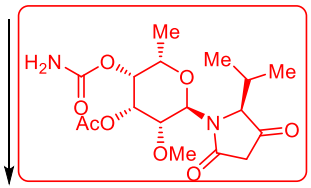
EDCI, DMAP
80%



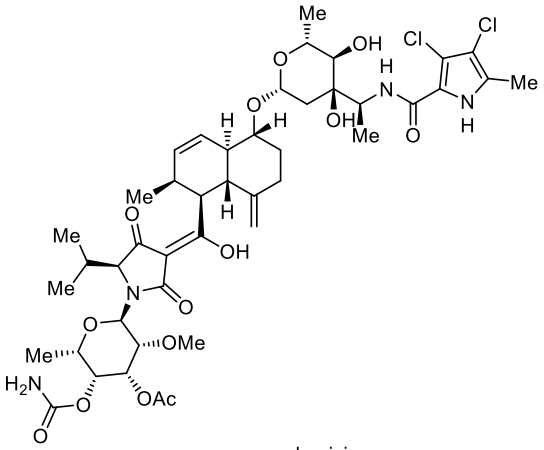
Fragment B

$Ph_3PAuOTf$
$Gd(OTf)_3$
toluene/CH_3CN
-78 °C, MS

Et_3N
HOAt
42%



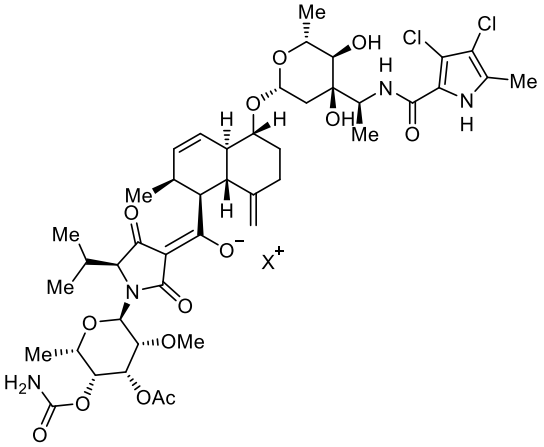
Fragment A



amycolamicin

TFA or HCl

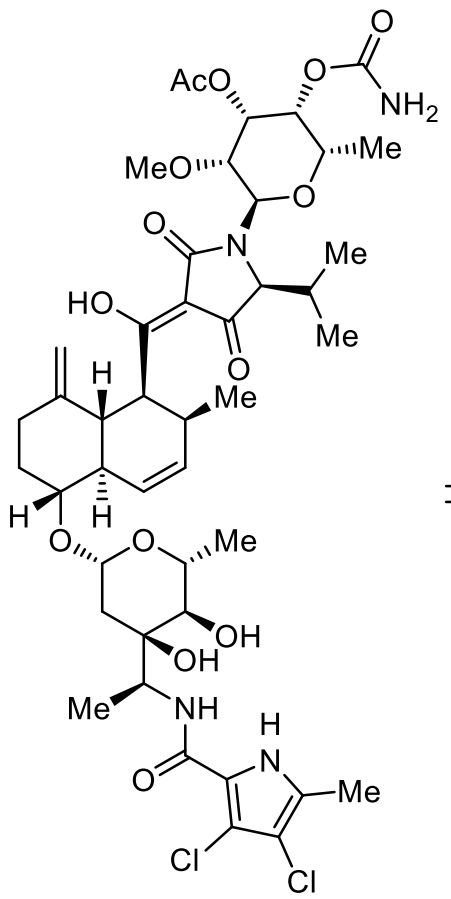
NaOH

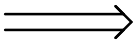


kibdelomycin

Solutions

Total synthesis of broad-spectrum antibiotic:

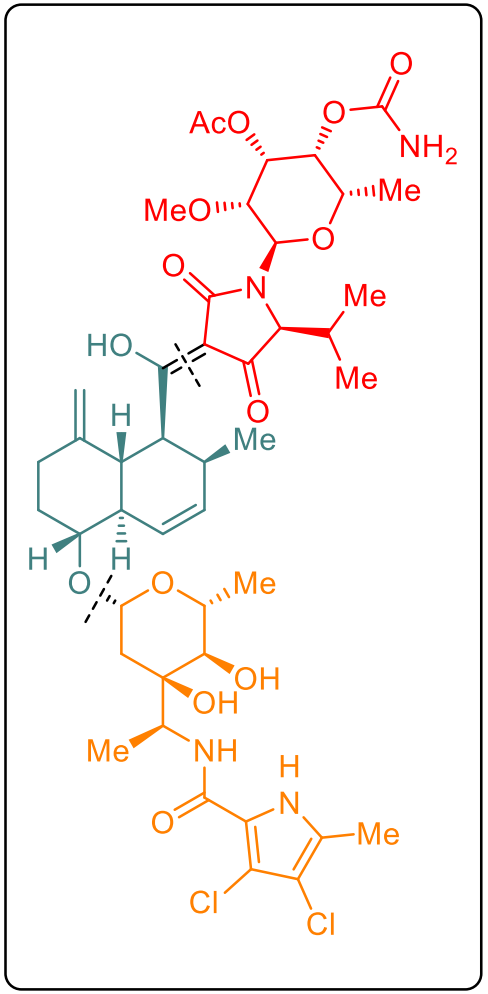




3 main fragments

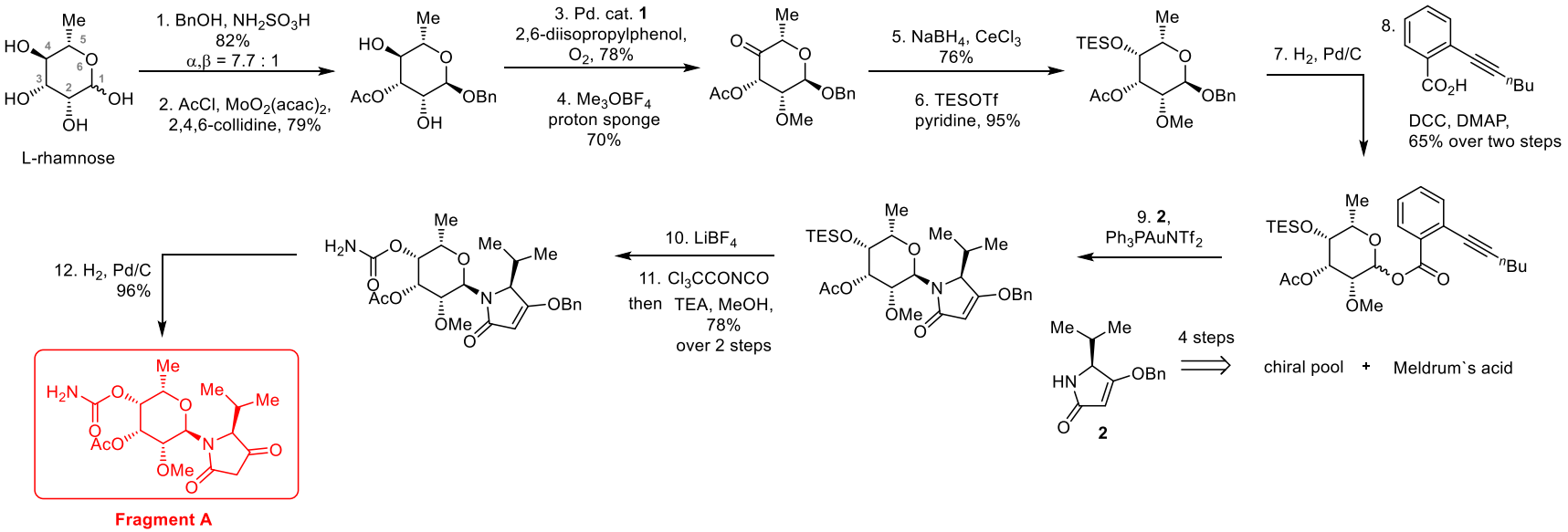
(5 fragments in total)

suggest disconnections

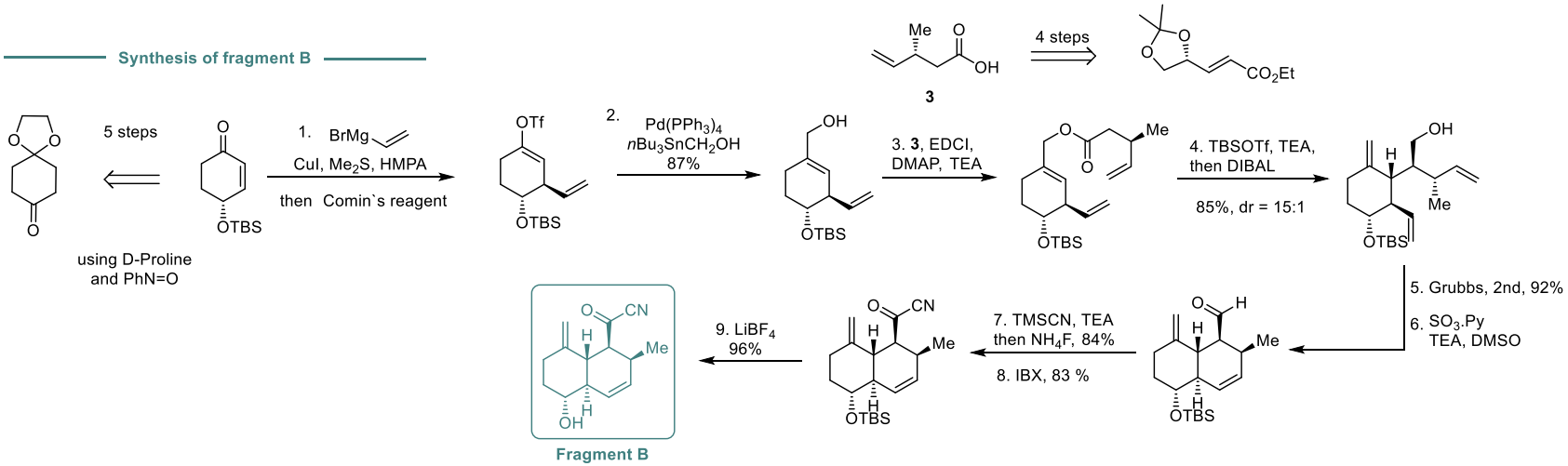


Fragments A, B and C

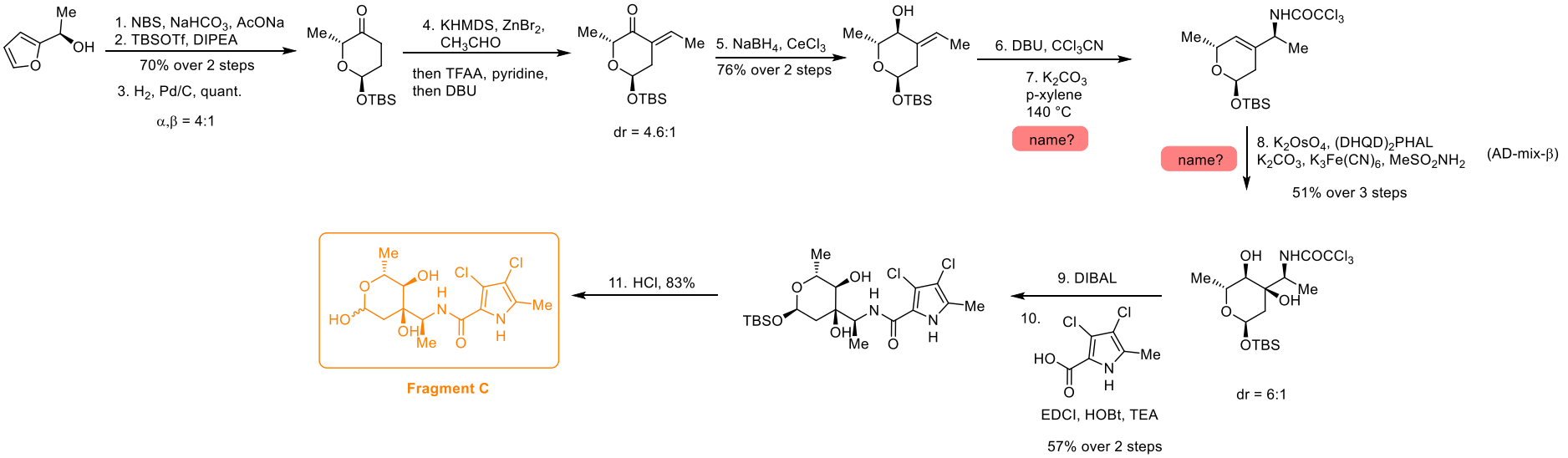
Synthesis of fragment A



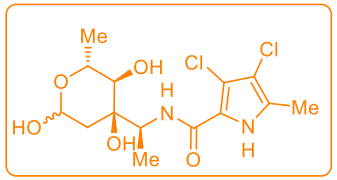
Synthesis of fragment B



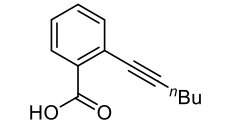
Synthesis fo fragment C



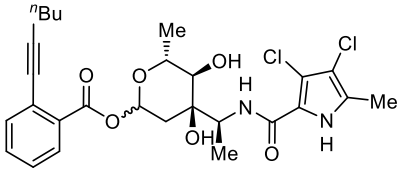
End game

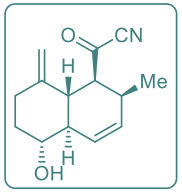


Fragment C



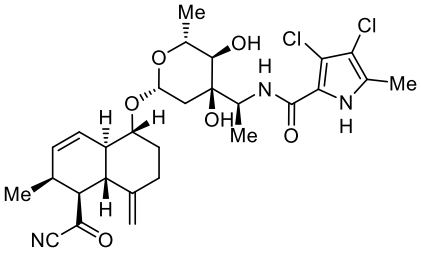
EDCI, DMAP
80%



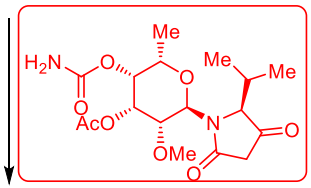


Fragment B

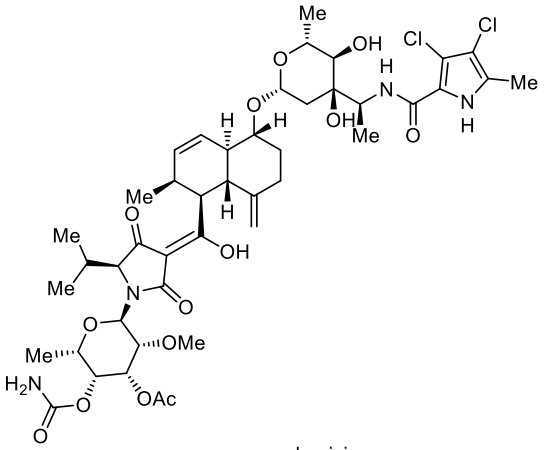
$Ph_3PAuOTf$
$Gd(OTf)_3$
toluene/CH_3CN
-78 °C, MS



Et_3N
HOAt
42%



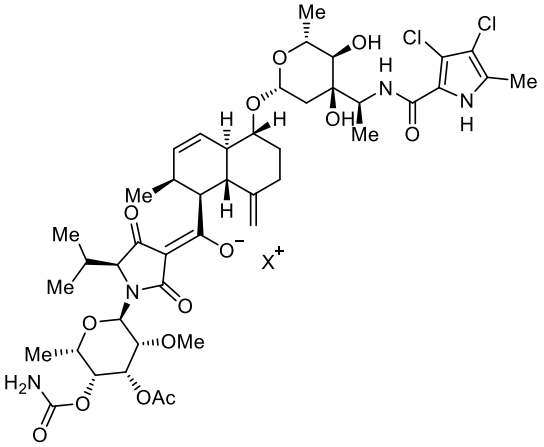
Fragment A



amycolamicin

TFA or HCl

NaOH



kibdelomycin