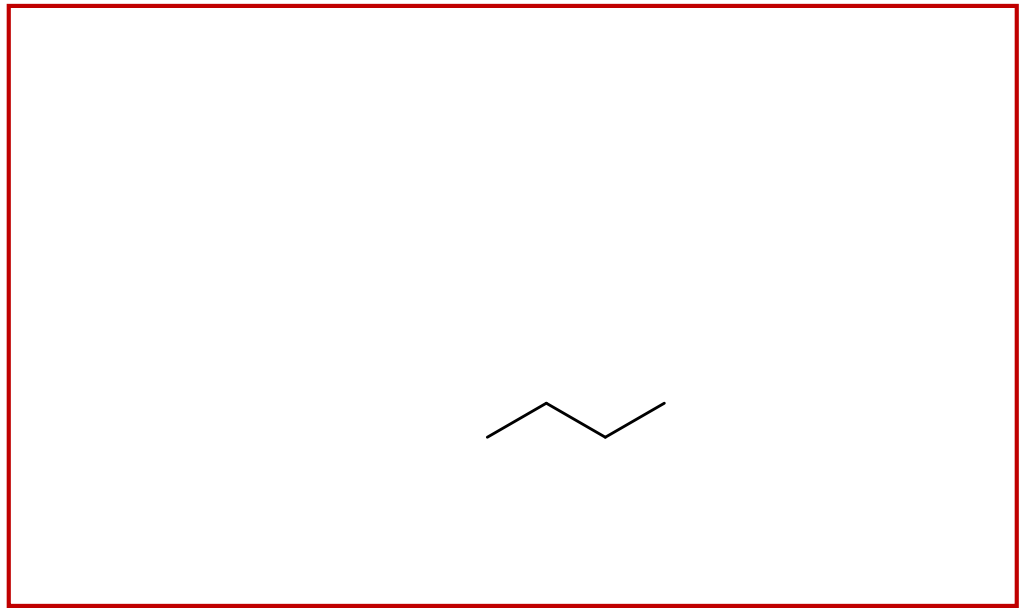


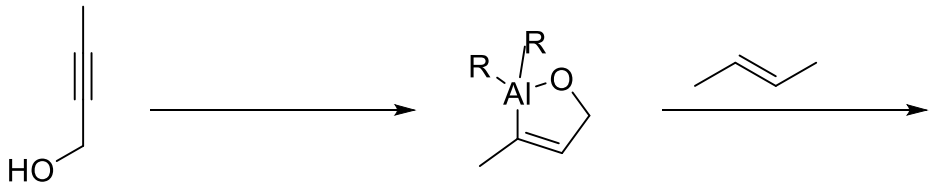
18-membered macrolide with four stereogenic centers;

Exhibits inhibitory growth of human cervical cancer and leukemia cells;

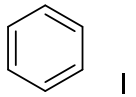
Cytotoxic against various human tumor cell lines in submicromolar concentrations;

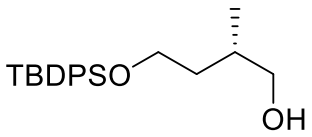
Biselyngbyolide B possesses 30- to 100- fold apoptosis-induction compared to congener, Biselyngbyaside

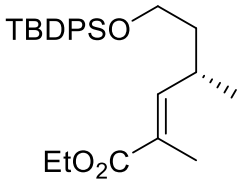
“Jamison’s Protocol”:



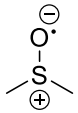
DMP Oxidation:



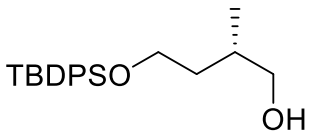


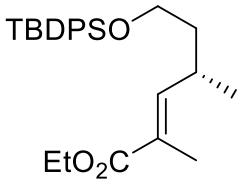


Swern Oxidation:



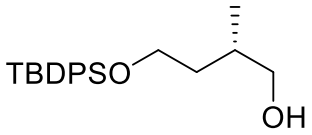
Witting Olefination:

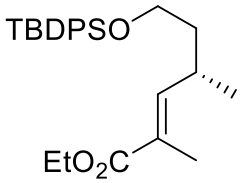




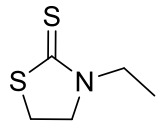
DIBAL-H Reduction:

Crimmins

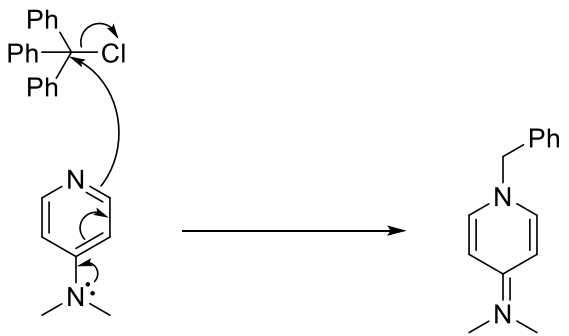


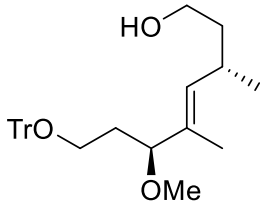


Sodium Borohydride Reduction:



Hydroxyl Protection:





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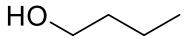
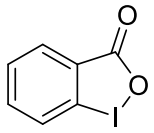
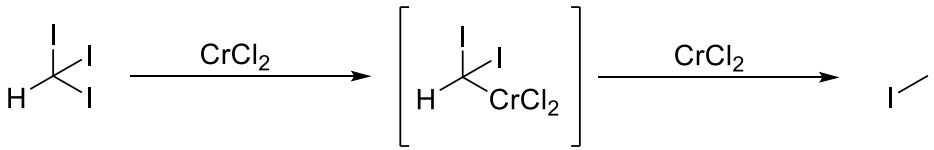
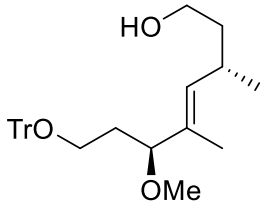


IBX Oxidation:



Takai Olefination:





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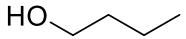
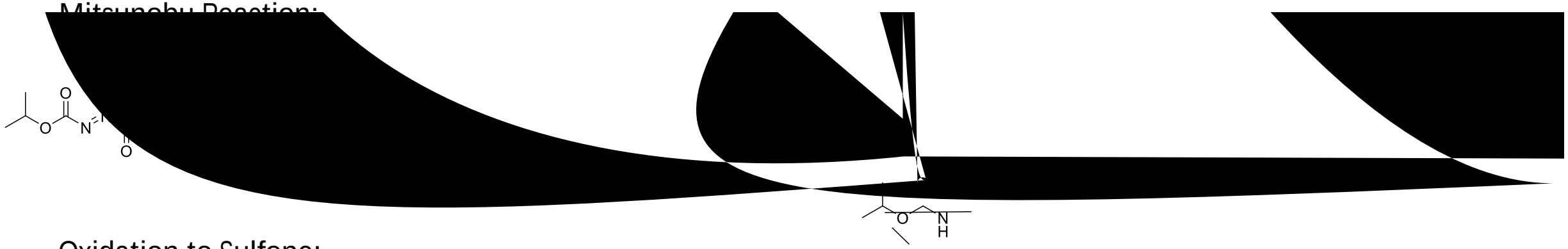
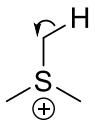


Mitsunobu Reaction:



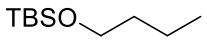
Oxidation to Sulfone:

Epoxide Opening:

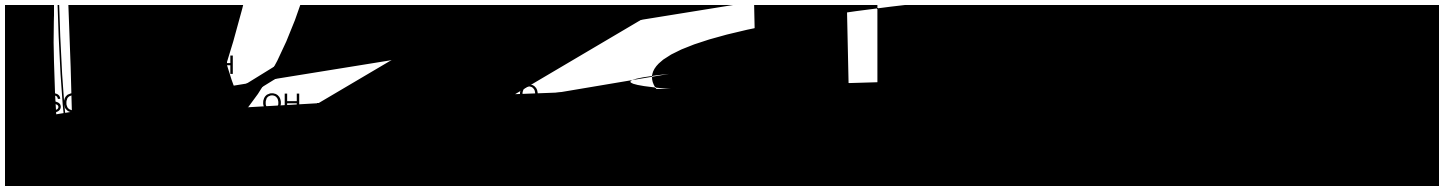


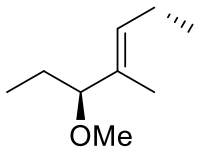
Silyl Protection:

Dihydroxylation:

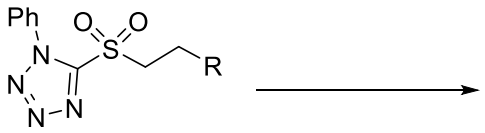


Sodium Periodate Diol Cleavage:

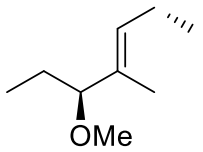




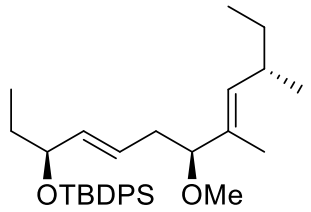
Julia-Kocienski Olefination:



Desilylation with CSA:



Pinnick Oxidation:



Heck Reaction:

Pd(0)

R

1	$Pd(PPh_3)_4$, NEt_3, MeCN	60	3	decomposition
2	$PdCl_2(MeCN)_2$, NEt_3, CO_2H_2, MeCN	25	3	decomposition
3				

PdCl