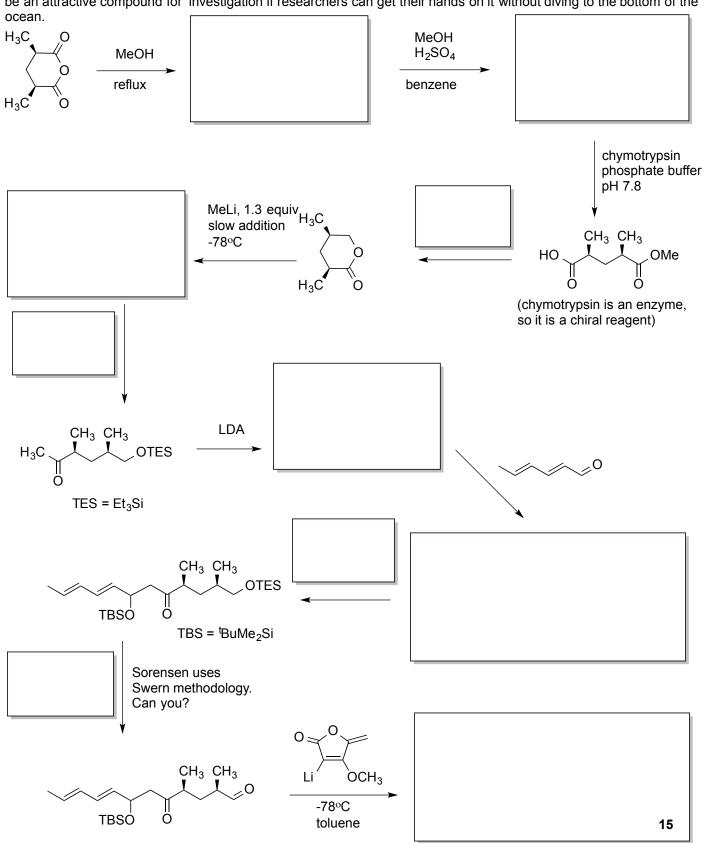
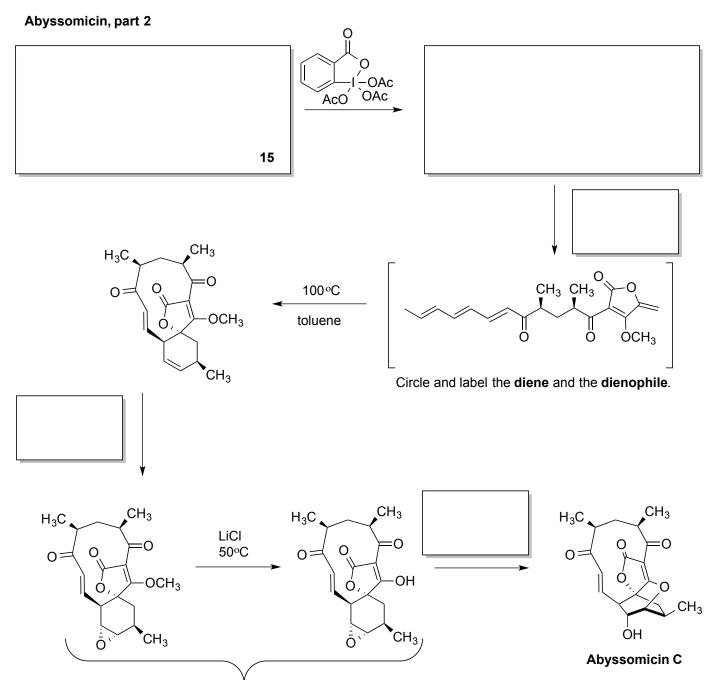
Synthesis of Abyssomicin C, Sorensen, Princeton, 2005

Abyssomicin is a natural product produced by an actinomycete found at depths of 300 m beneath the Sea of Japan. It inhibits methicillin-resistant and vancomycin-resistant bacteria (i.e. kills bacteria that can survive current "last-line of defense" antibiotics). Although the mechanism of antibiotic action is not known, abyssomicin inhibits conversion of chorismate to *p*-aminobenzoate, which plays a role in bacterial biochemistry but not in human biochemistry; thus, it may be an attractive compound for investigation if researchers can get their hands on it without diving to the bottom of the ocean.





Show a mechanism for this step, and explain the leaving group stability.