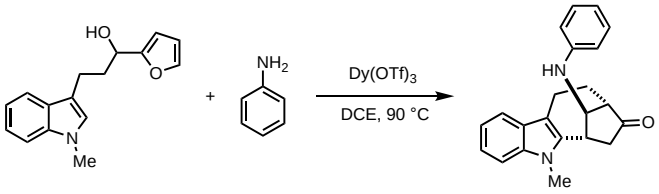
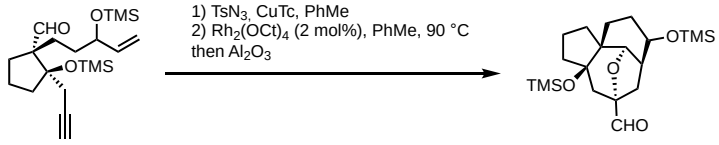
1. Please provide a plausible mechanism for the following transformation, explaining the complete diastereoselectivity obtained. (*Org. Lett*. **2020**, 22, 21, 8555)



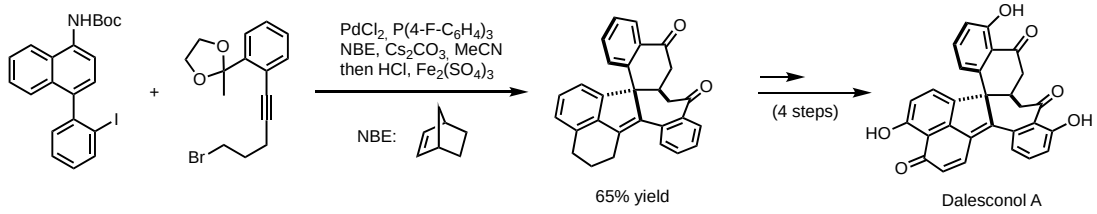
70% yield

2. Please provide a plausible mechanism for the following transformation. (*Org. Lett.* **2021**, 23, 20, 7771–7775)



64% yield

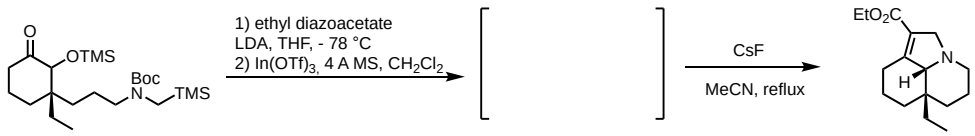
3. Please provide a plausible mechanism for the following transformation. (J. Am. Chem. Soc. **2021**, 143, 21270−21274)



65% yield

Dalesconol A

4. Please provide a plausible mechanism for the following transformations and the structure of the isolable intermediate. (*Org. Lett.* **2016**, 18, 3952−3955)



66% yield
(2 steps)

60% yield