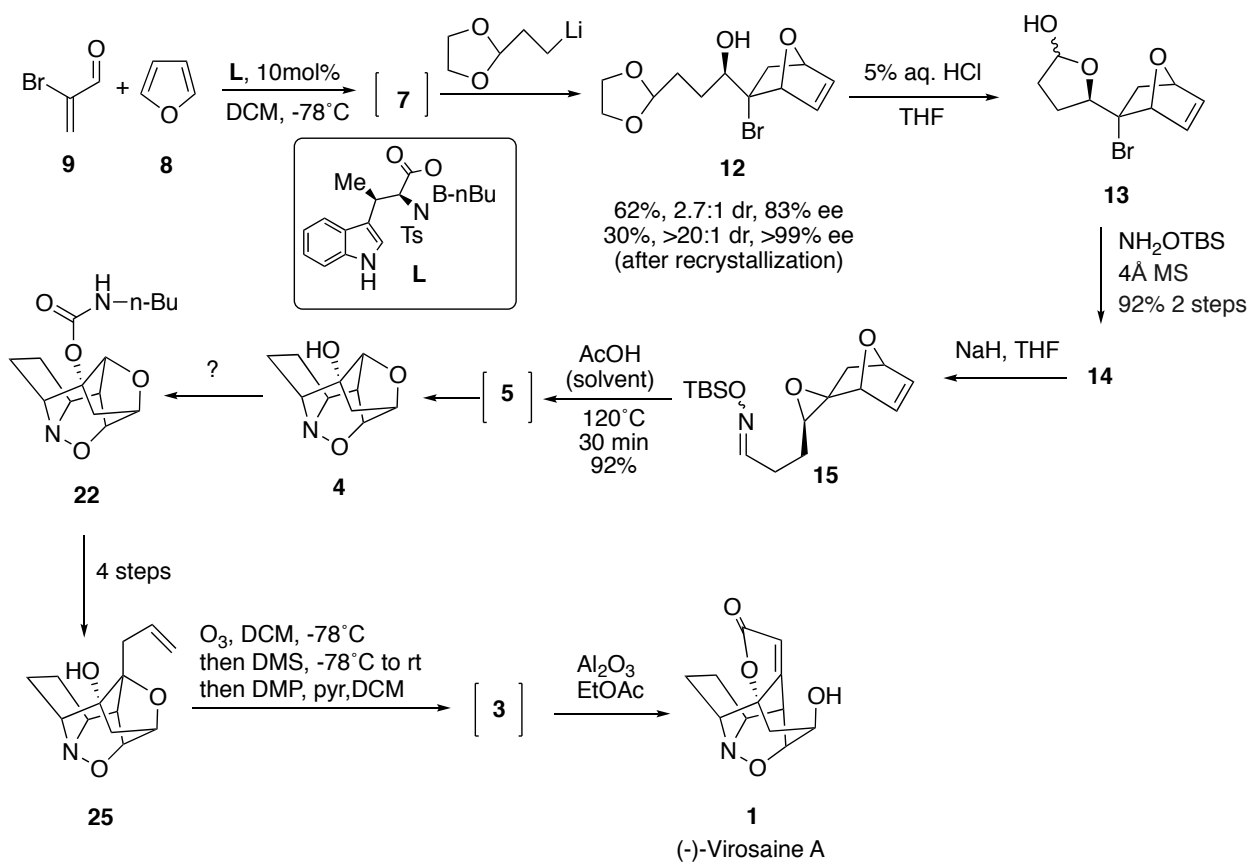


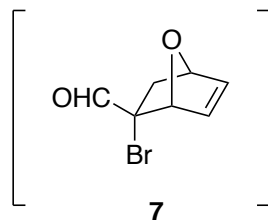
## Total synthesis of (-)-Virosaine A

Questions:

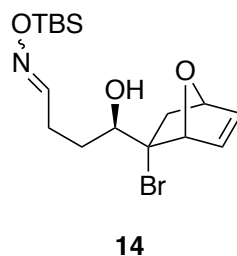
- Propose intermediate **7** on the way to obtain **12**, which was not isolated
- Find the product **14**
- Propose transformations from **15** and the product **5** on the way to get **4**
- Write reagents to get **22**
- Obtain product **25** from **22** in 4 steps. And write these steps
- Write intermediate **3** and mechanism for obtaining the final product **1**

## Total synthesis of (-)-Virosanine A

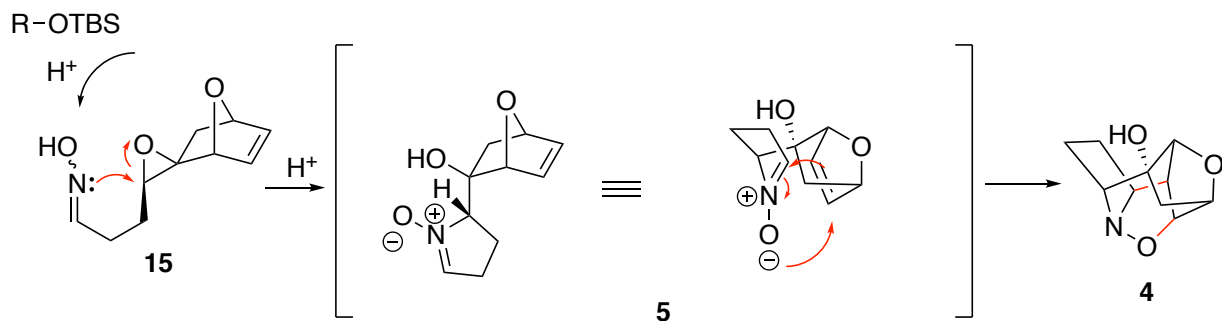
1. Propose intermediate **7** on the way to obtain **12**, which was not isolated



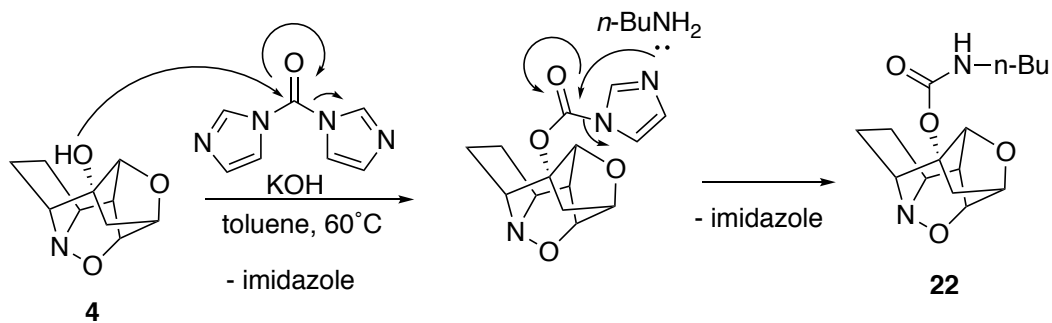
2. Find the product **14**



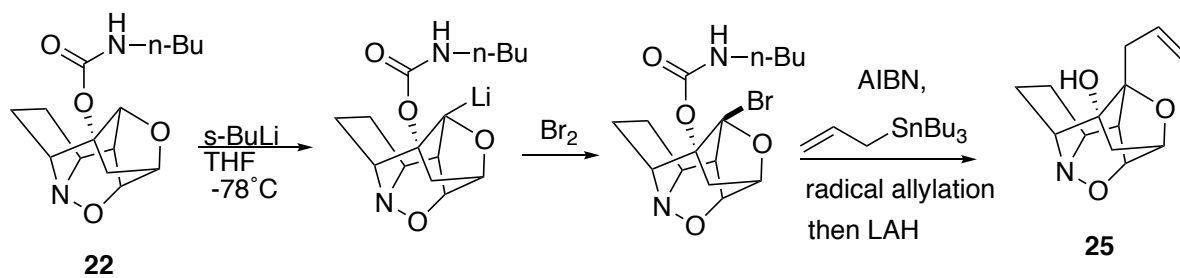
3. Propose transformations from **15** and the product **5** on the way to get **4**



4. Write reagents to get **22**



5. Obtain product **25** from **22** in 4 steps. And write these steps



6. Write intermediate **3** and mechanism for obtaining the final product **1**

