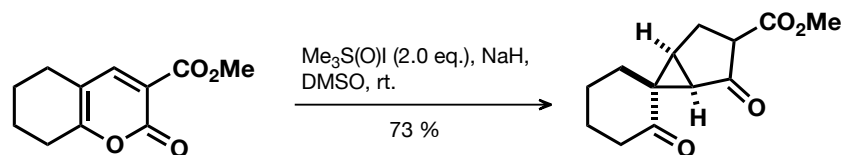
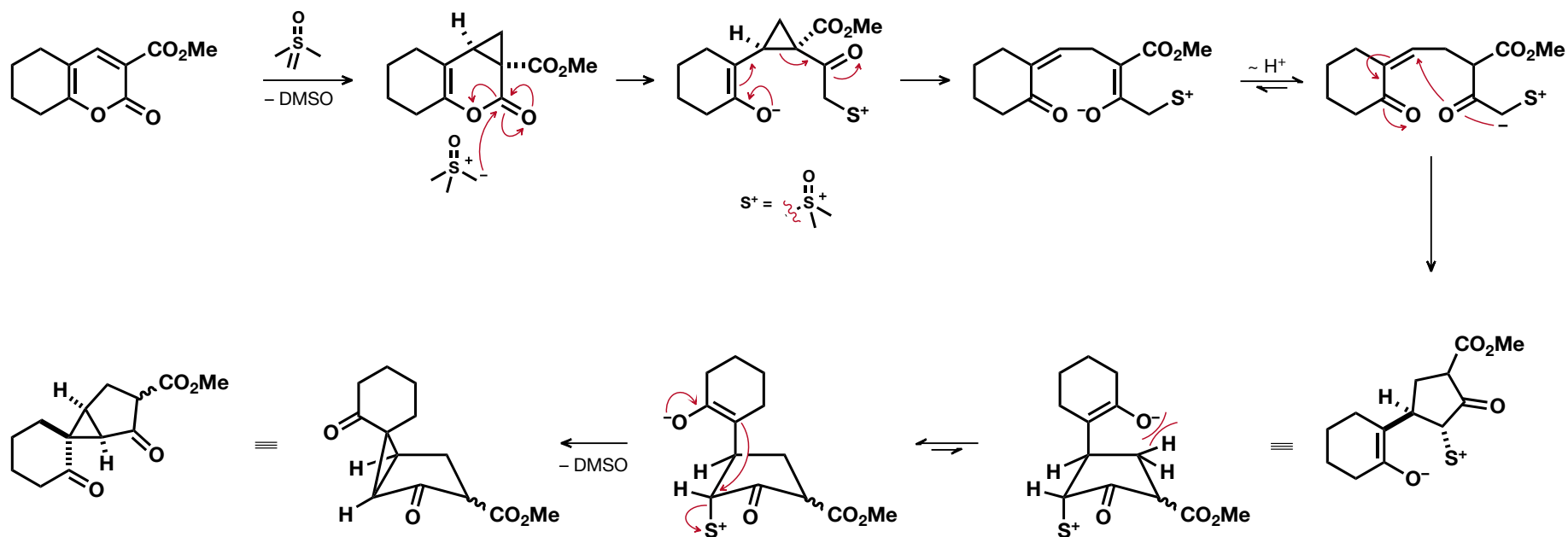


1. Assign a probable mechanism to the following transformation including an explanation for the stereochemical outcome.

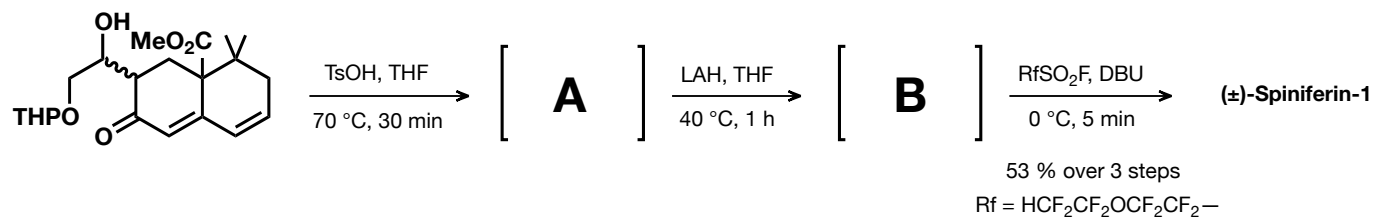
Org. Lett. 2012, 14, 6048.



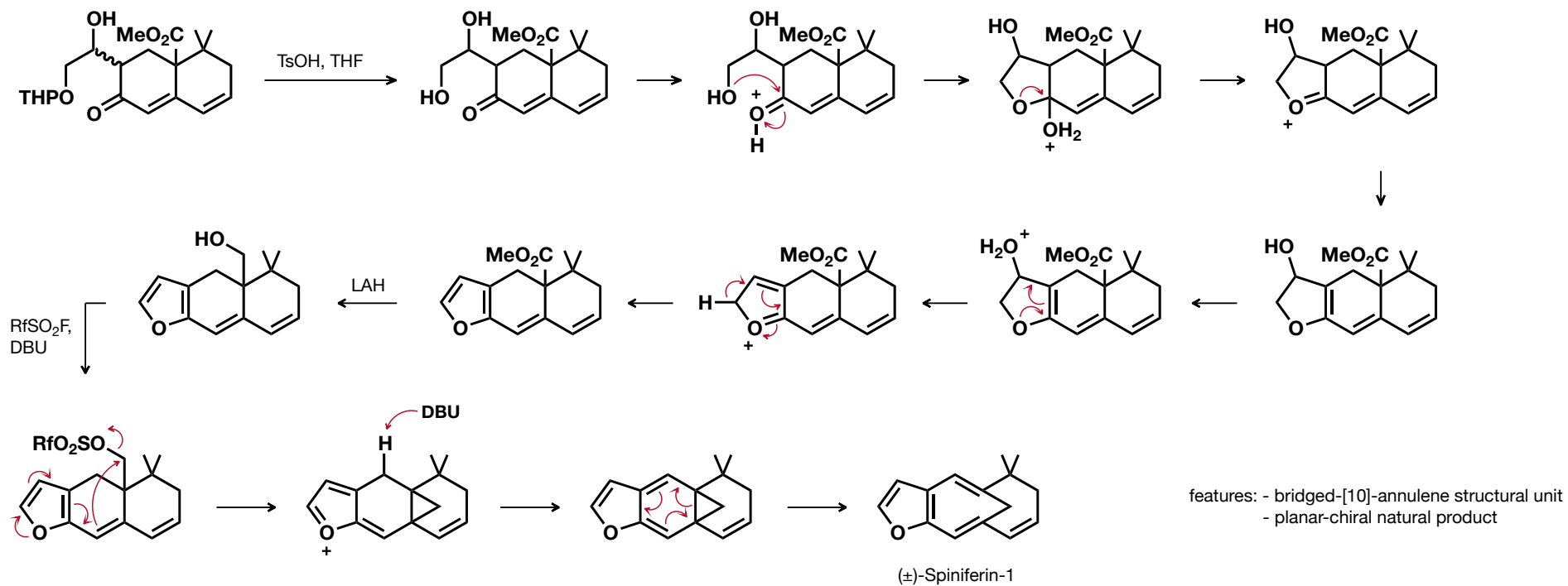
Proposed mechanism:

2. Explain the outcome of the reaction (synthesis of (\pm)-Spiniferin-1).

J. Org. Chem. 2011, 76, 1495.

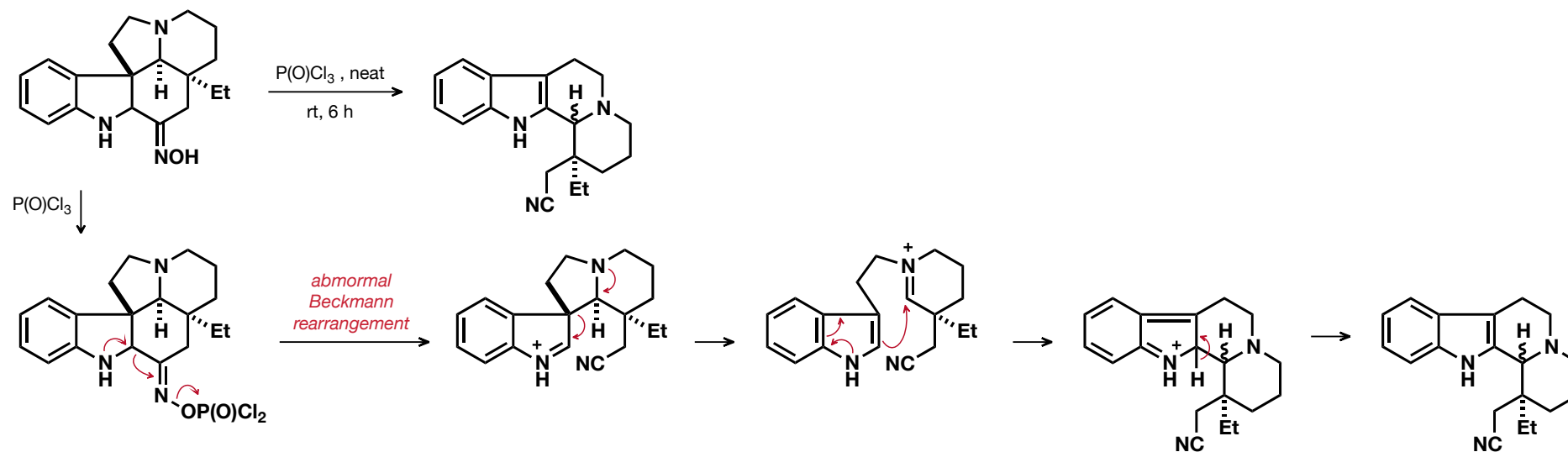


Proposed mechanism:



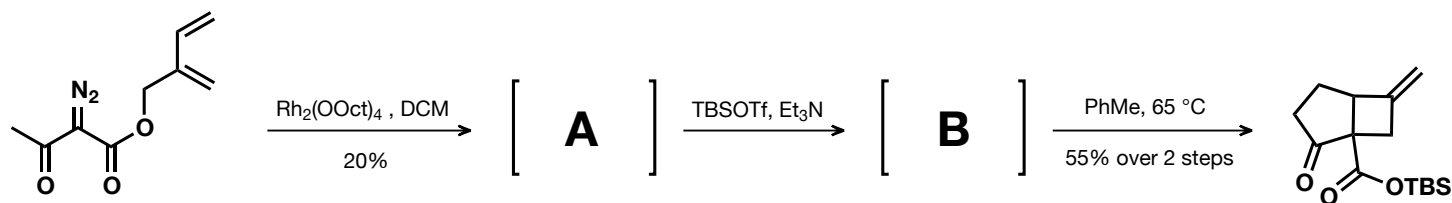
3. Mechanism for this transformation? (Name Reaction?)

Tet. Lett. **1974**, *17*, 1597.

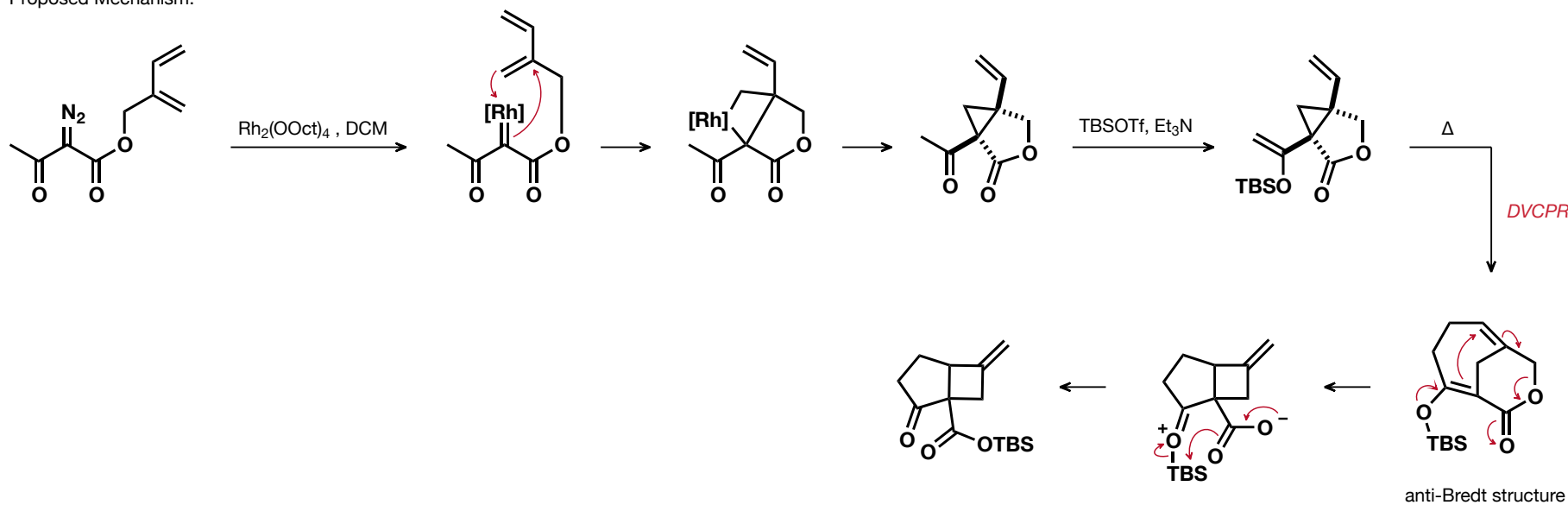


4. Assign a probable mechanism to the following transformation.

J. Org. Chem. **2000**, 65, 4261.



Proposed Mechanism:



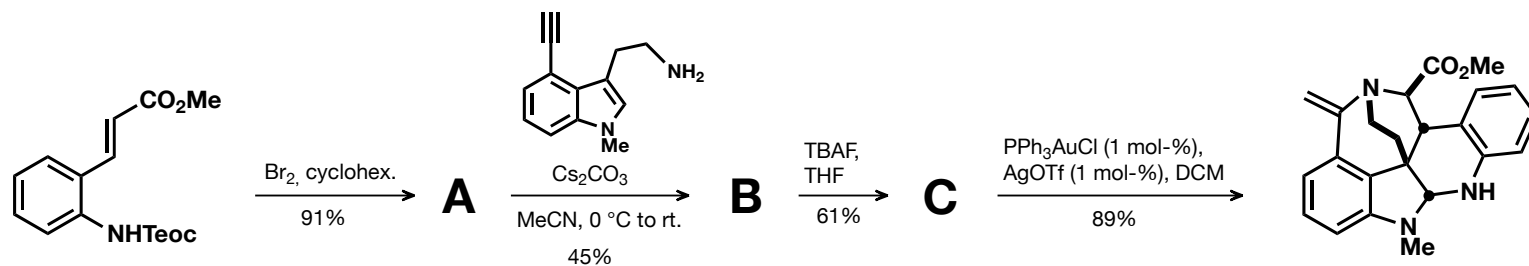
5. Assign a probable mechanism to the following transformation.

J. Am. Chem. Soc., **1995**, 117, 10413.

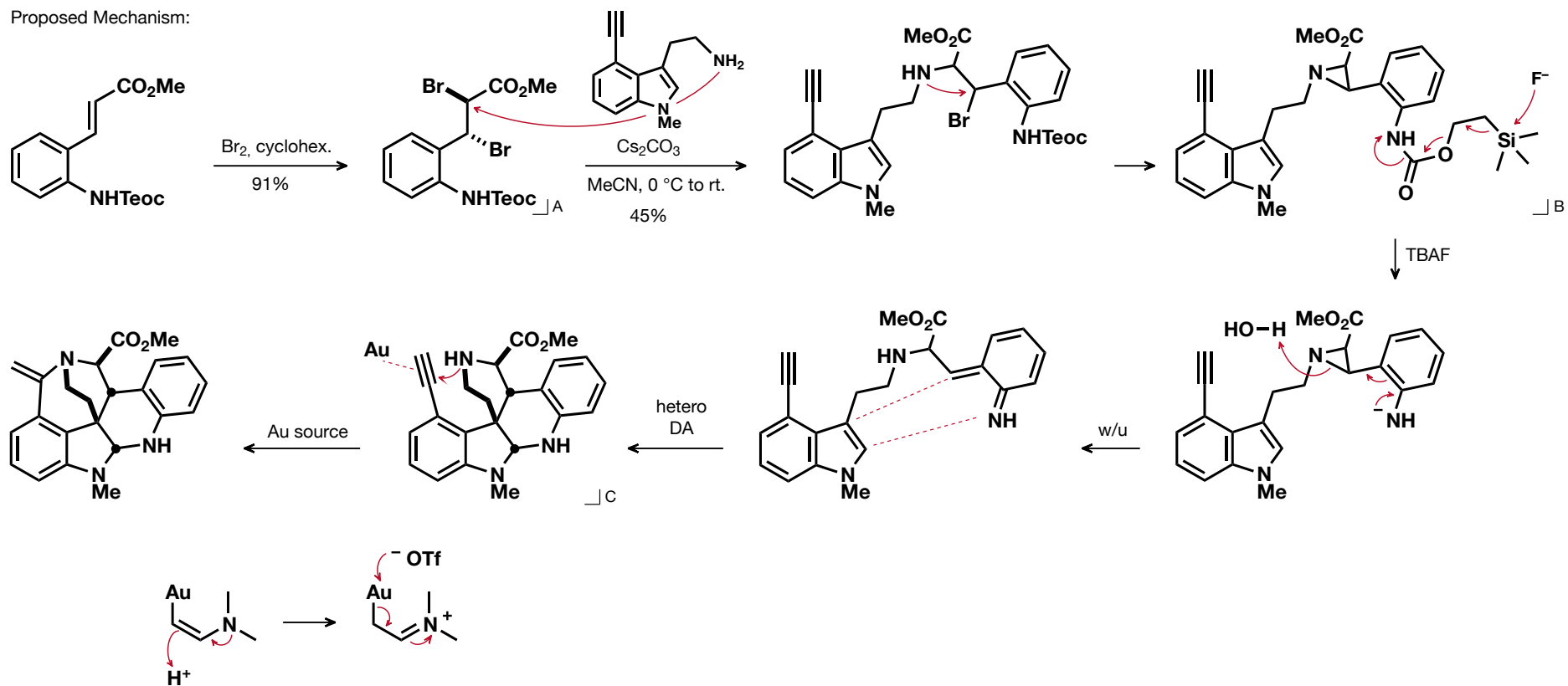


7. Assign a probable mechanism to the following transformation.

Funk, *Org. Lett.*, 2006, 8, 3995.

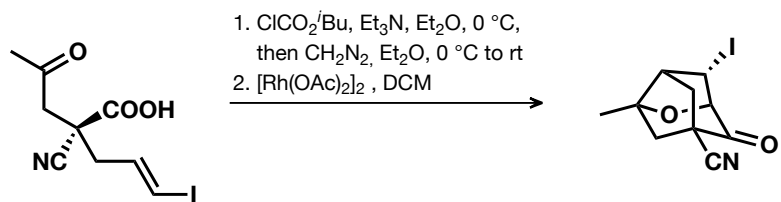


Proposed Mechanism:



A1. Draw a mechanism for the formation of the tricyclic compound.

Lee, *Angew. Chem. Int. Ed.*, **2008**, 47, 4009.



Proposed Mechanism:

