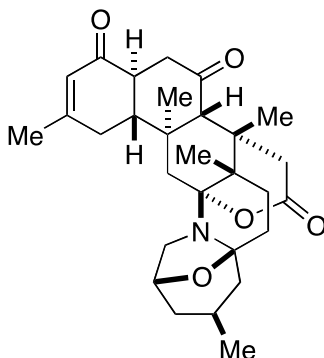
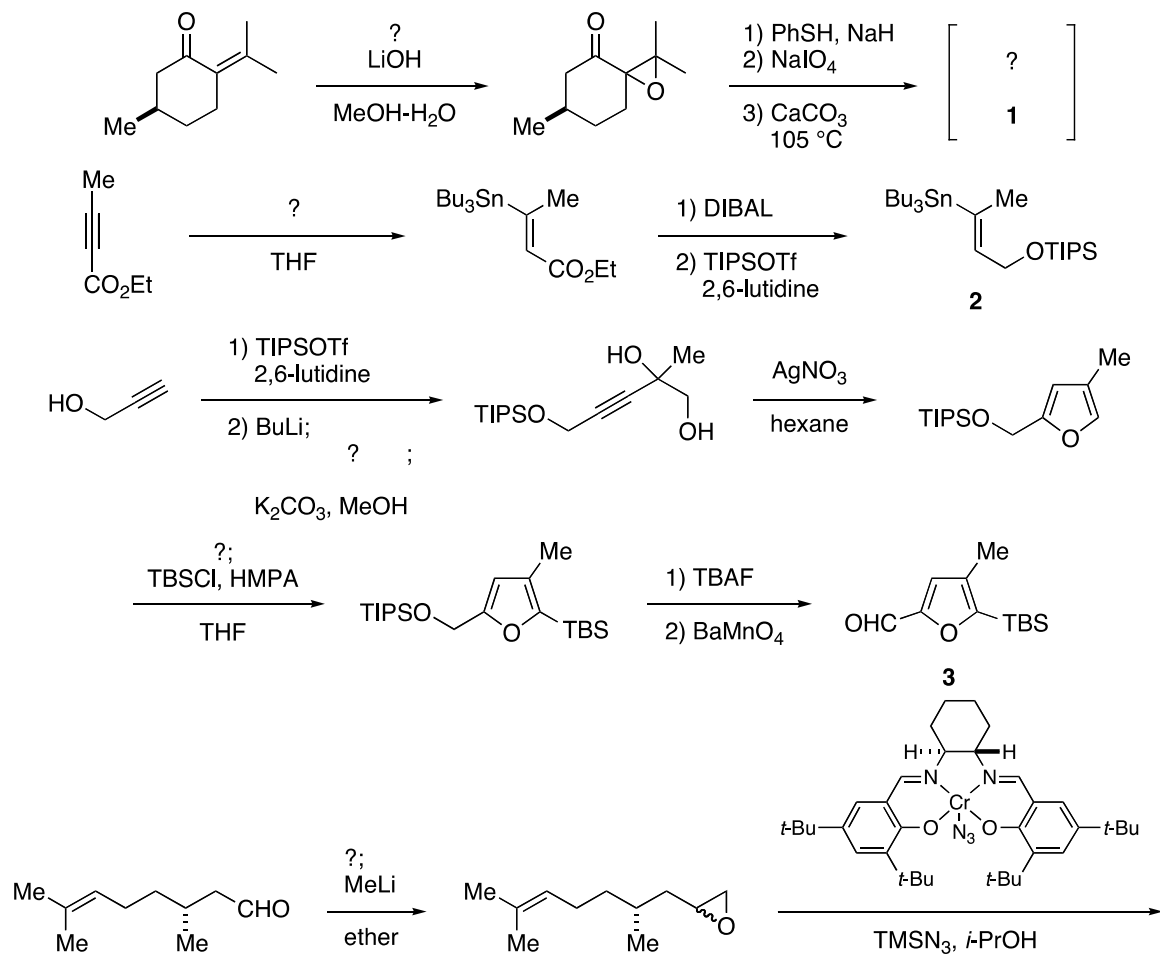


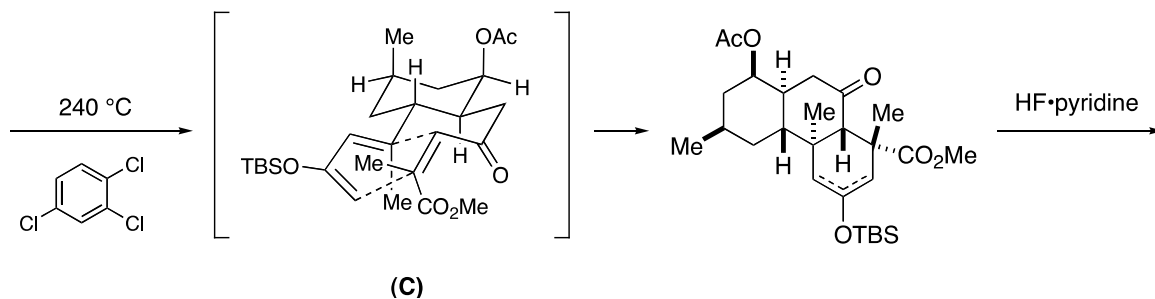
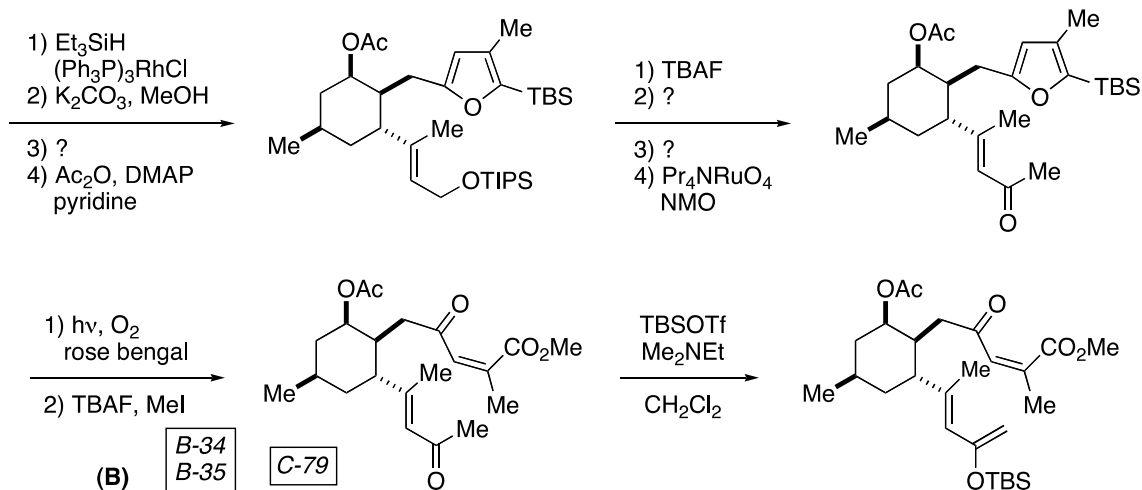
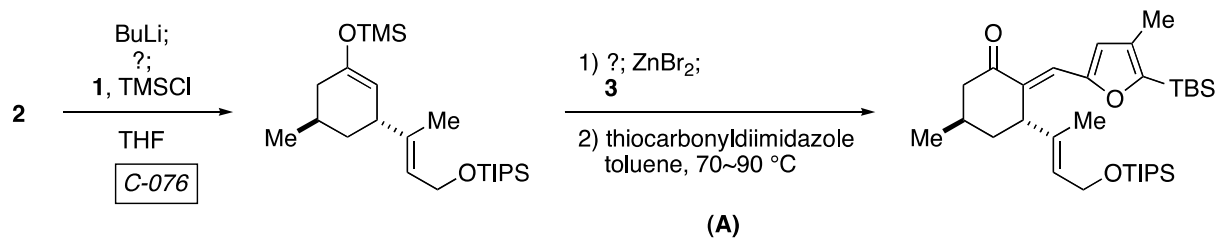
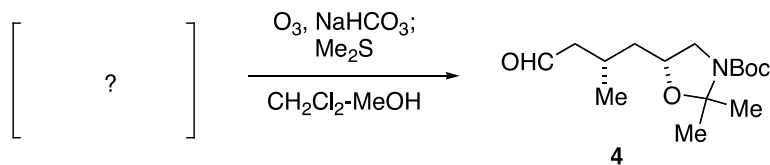
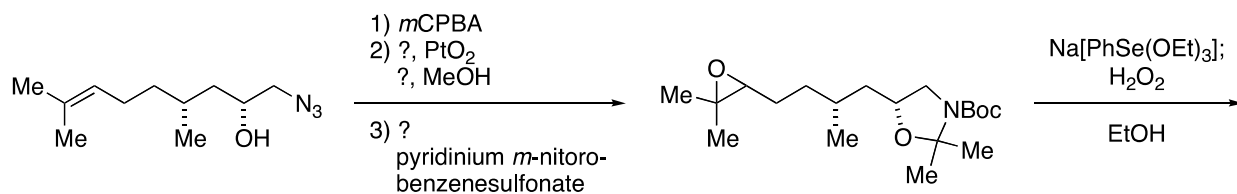
Norzoanthamine (TKGP-190622)

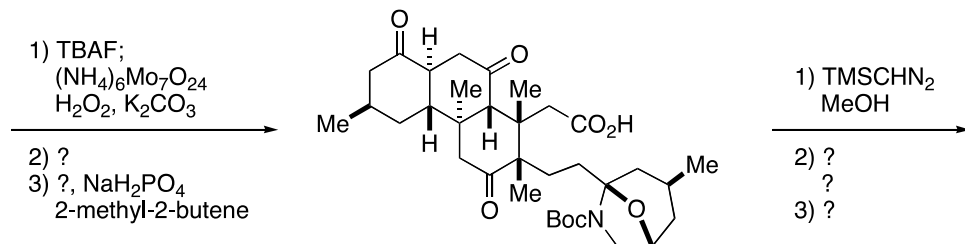
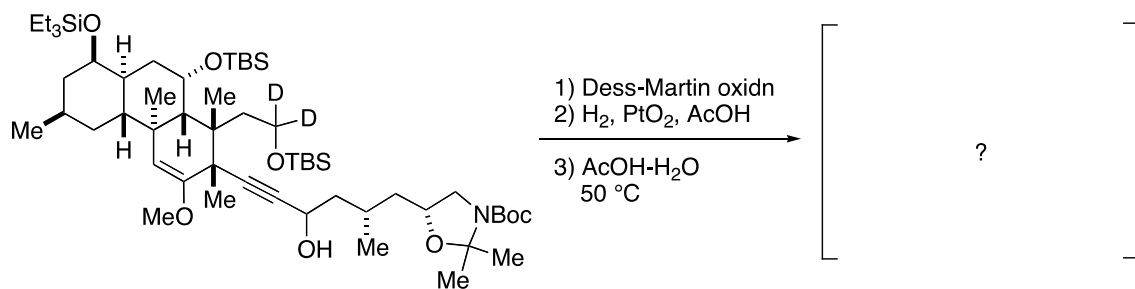
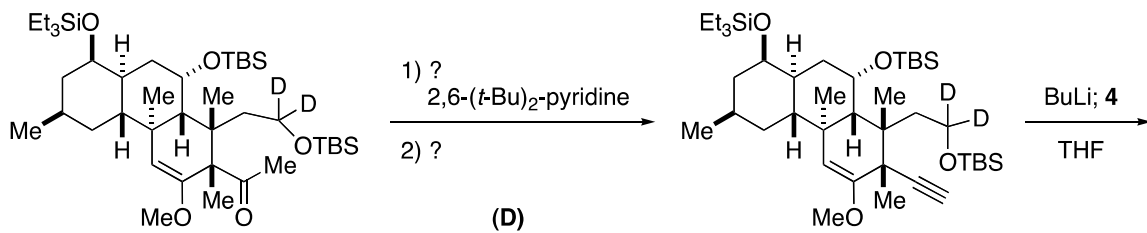
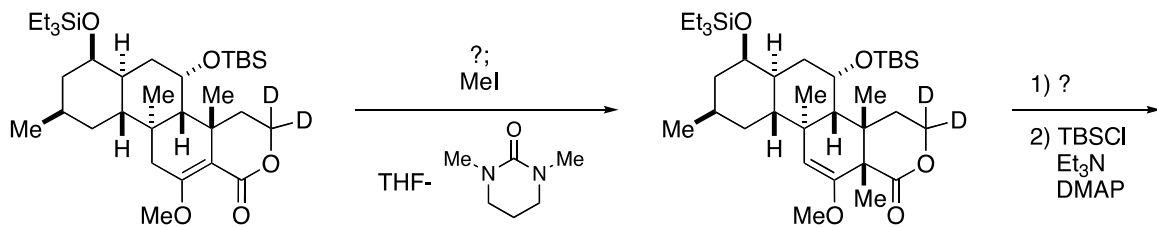
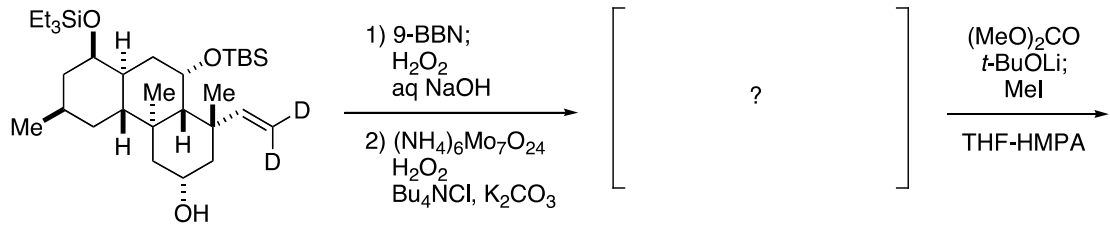
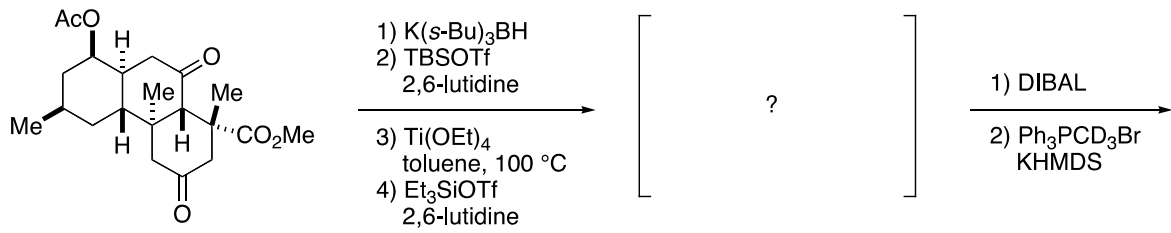
Masaaki Miyashita, Keiji Tanino<sup>1),2)</sup>

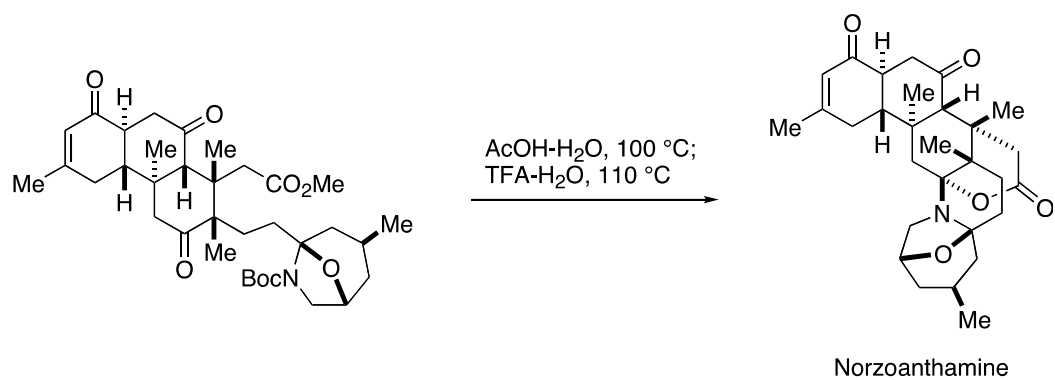
**Activity** antiosteoporotic 骨粗鬆症抑制作用

**Key Reactions** (A) Three-component coupling, (B) Photosensitized oxidation of 2-silylfuran, (C) Intramolecular Diels-Alder reaction, (D) Kinetic deuterium isotope effect









### References

- 1) M. Sakai, M. Sasaki, K. Tanino, M. Miyashita, *Tetrahedron Lett.*, **43**, 1705-1708 (2002)
- 2) M. Miyashita, M. Sasaki, I. Hattori, M. Sakai, K. Tanino, *Science*, **305**, 495-499 (2004)