

Marine Natural Products from

Pseudopterogorgia elisabethae

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Brief Introduction

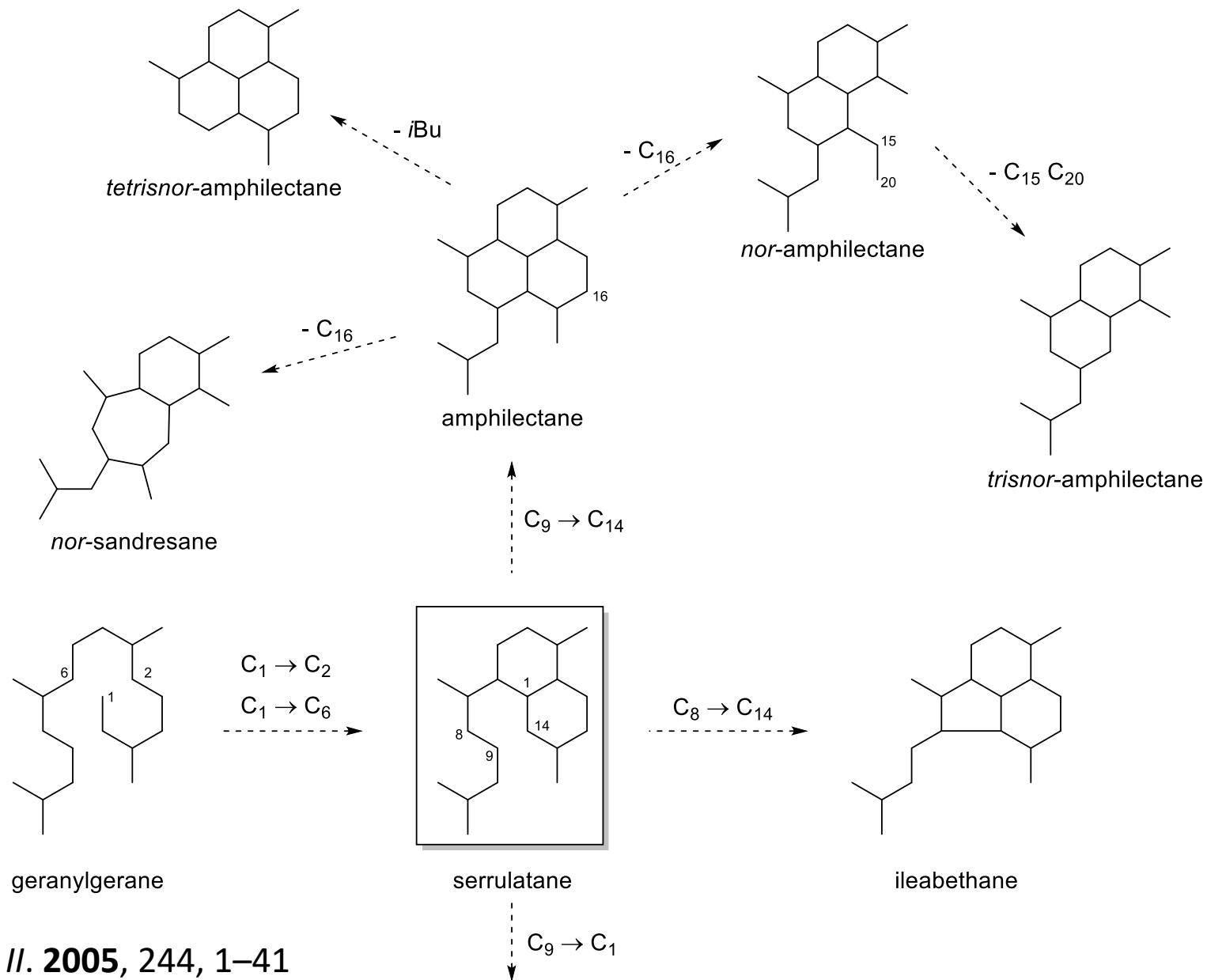


Natural products from the Caribbean gorgonian *Pseudopterogorgia elisabethae* were mostly isolated by **Fenical group** and **Rodríguez group**

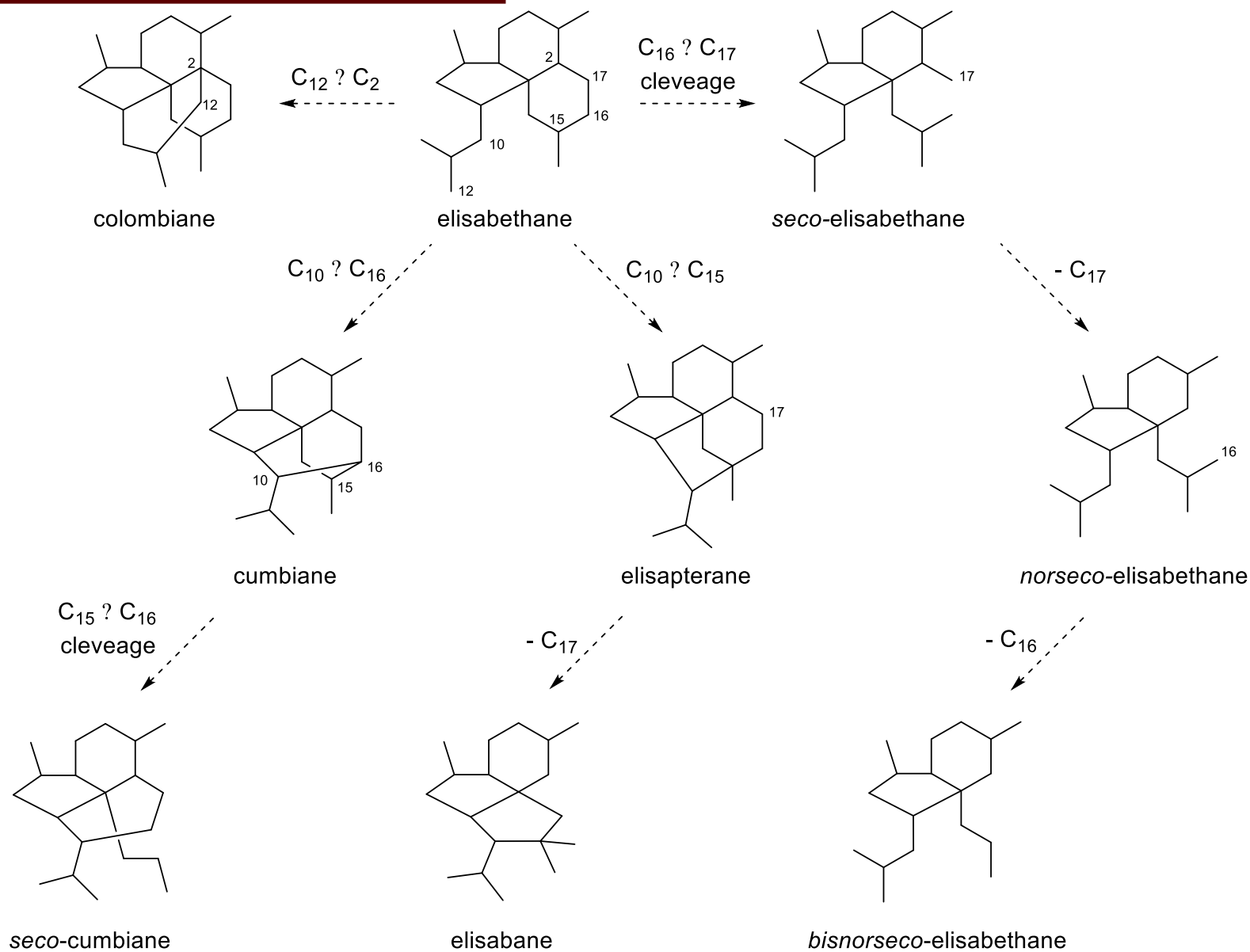
- **Anti-inflammatory**
- **Antituberculosis**
- **Anticancer**
- **Antiplasmodial**

pseudopterოსins and seco-pseudopterოსin
elisapterოსin, erogorgiaene and pseudopterოxazole
elisapterოსin A, elisabatin A and elisabethin B
elisapterოსin A

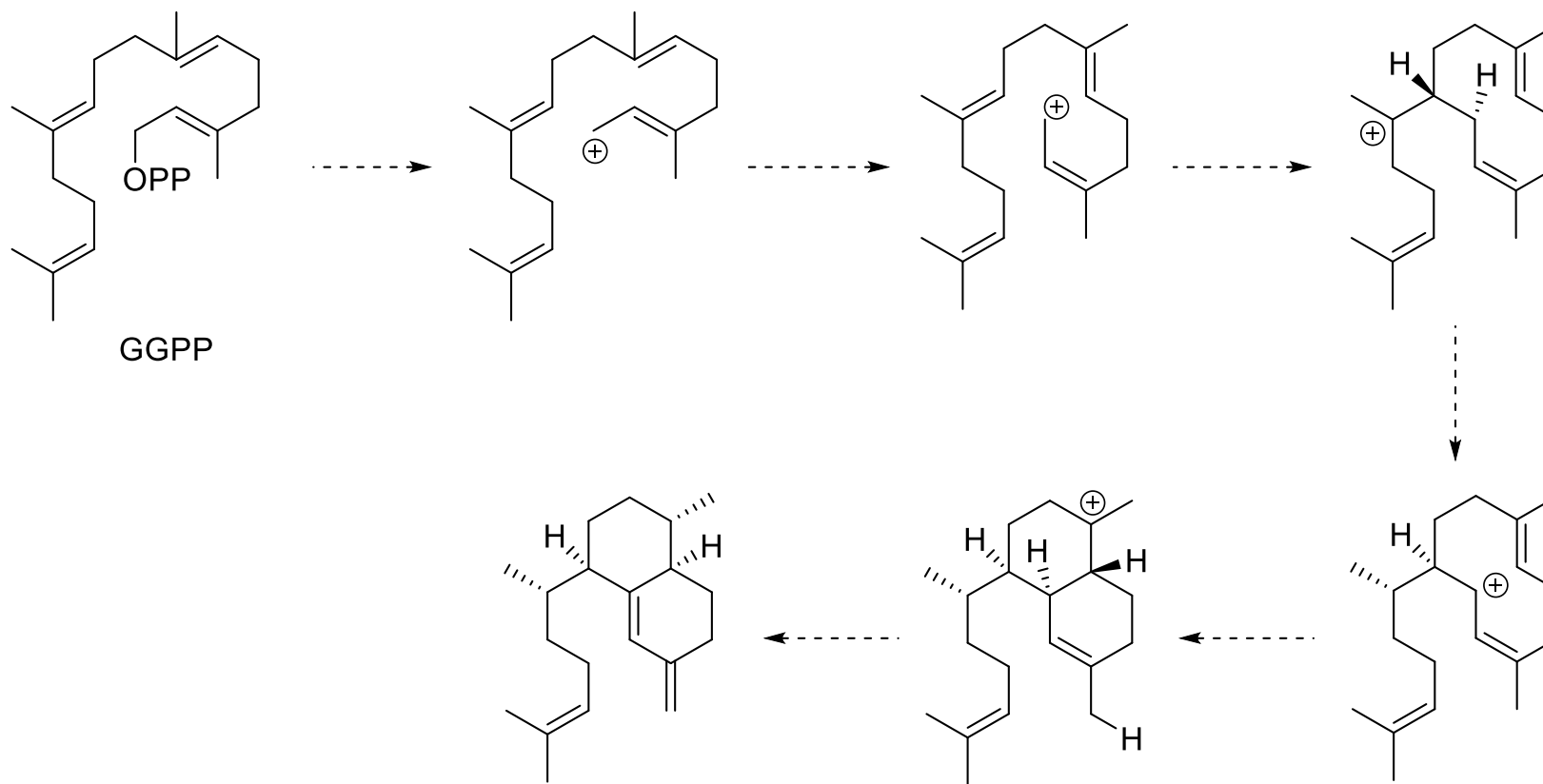
Structures and Biosynthetic Pathways



Structures and Biosynthetic Pathways



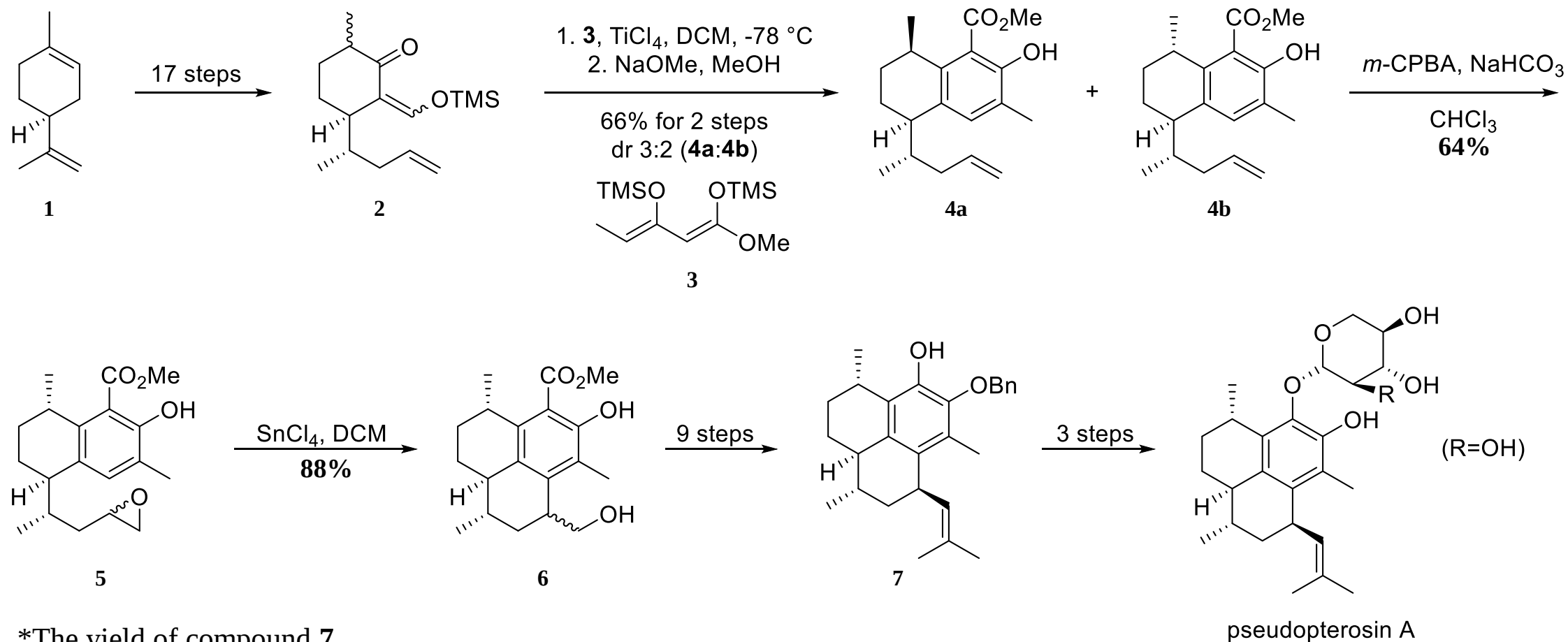
Structures and Biosynthetic Pathways



Synthesis

Broka (1988)

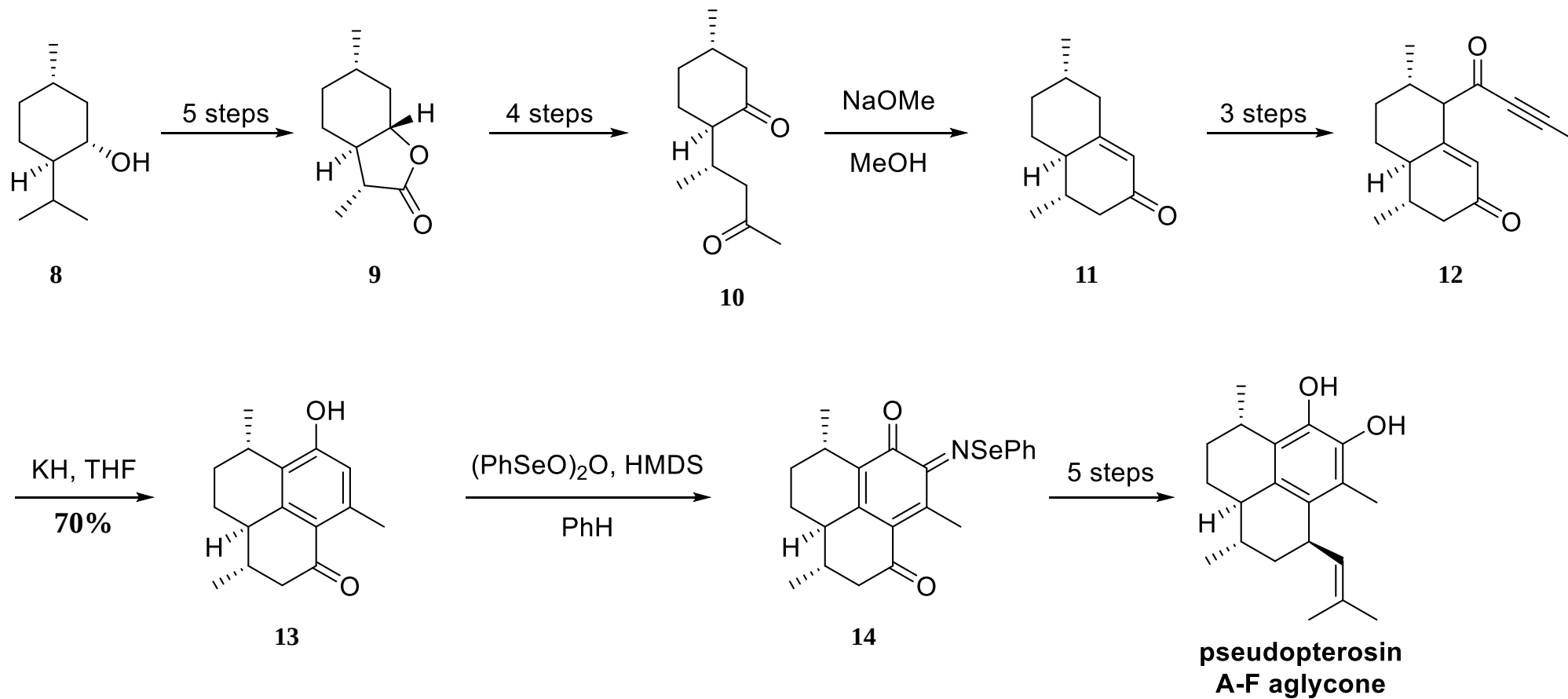
31 steps for pseudopterosin A-F aglycone (*7.07‰); 33 steps for pseudopterosin A (2.63‰)



*The yield of compound **7**

Synthesis

Corey (1989)
20 steps (*2.43%)

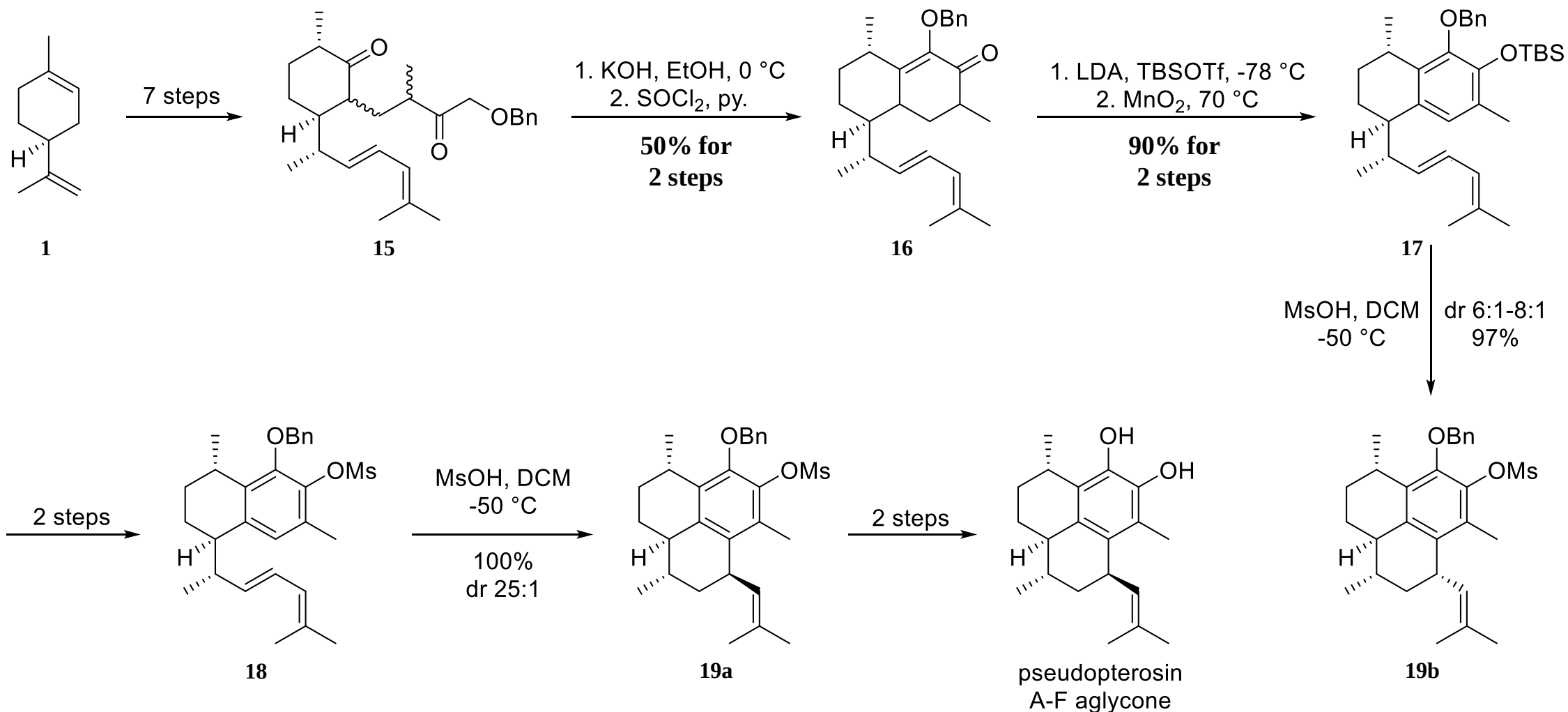


*The yields of the first 2 steps are not specified

Synthesis

Corey (1998)

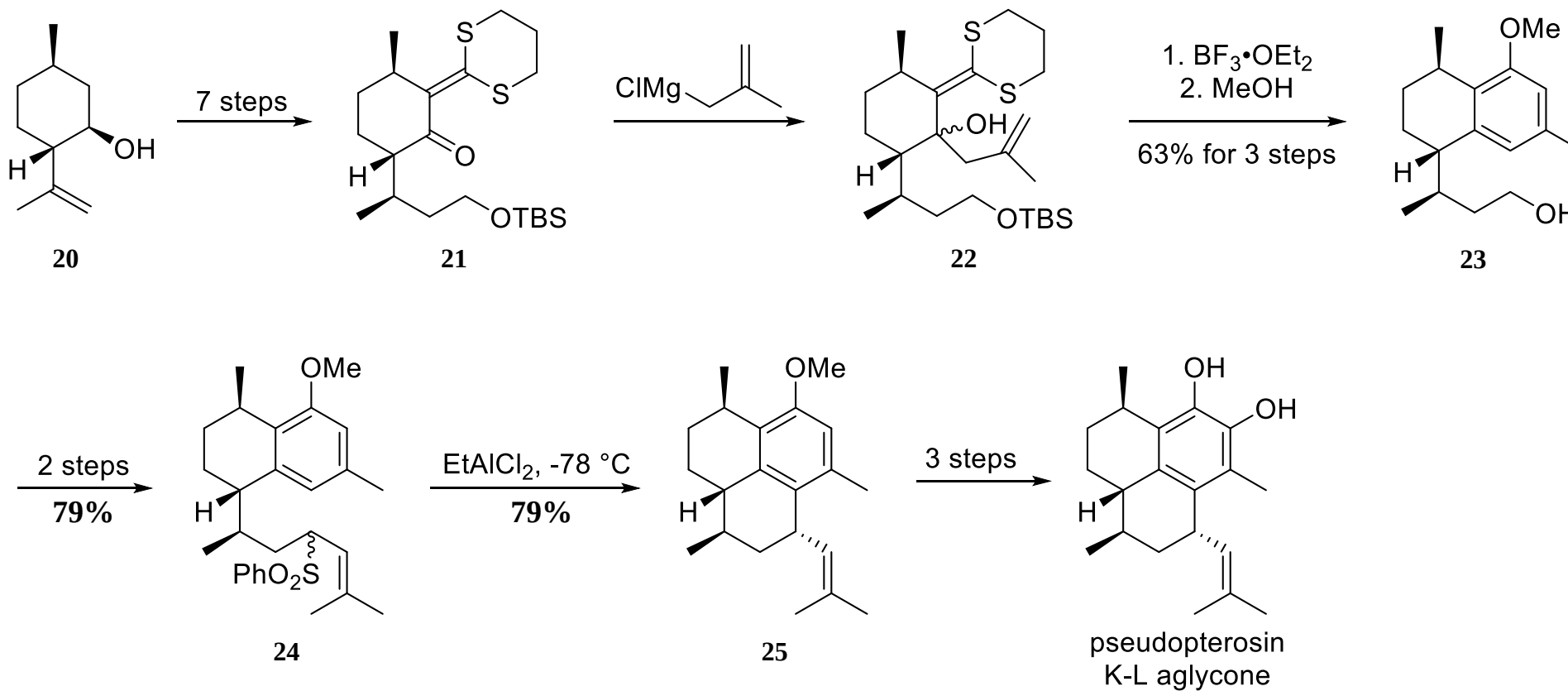
16 steps for pseudopterosin A-F aglycone (5.97%); 14 steps for pseudopterosin G-J aglycone (6.29%)



Synthesis

Kocienski (2001)

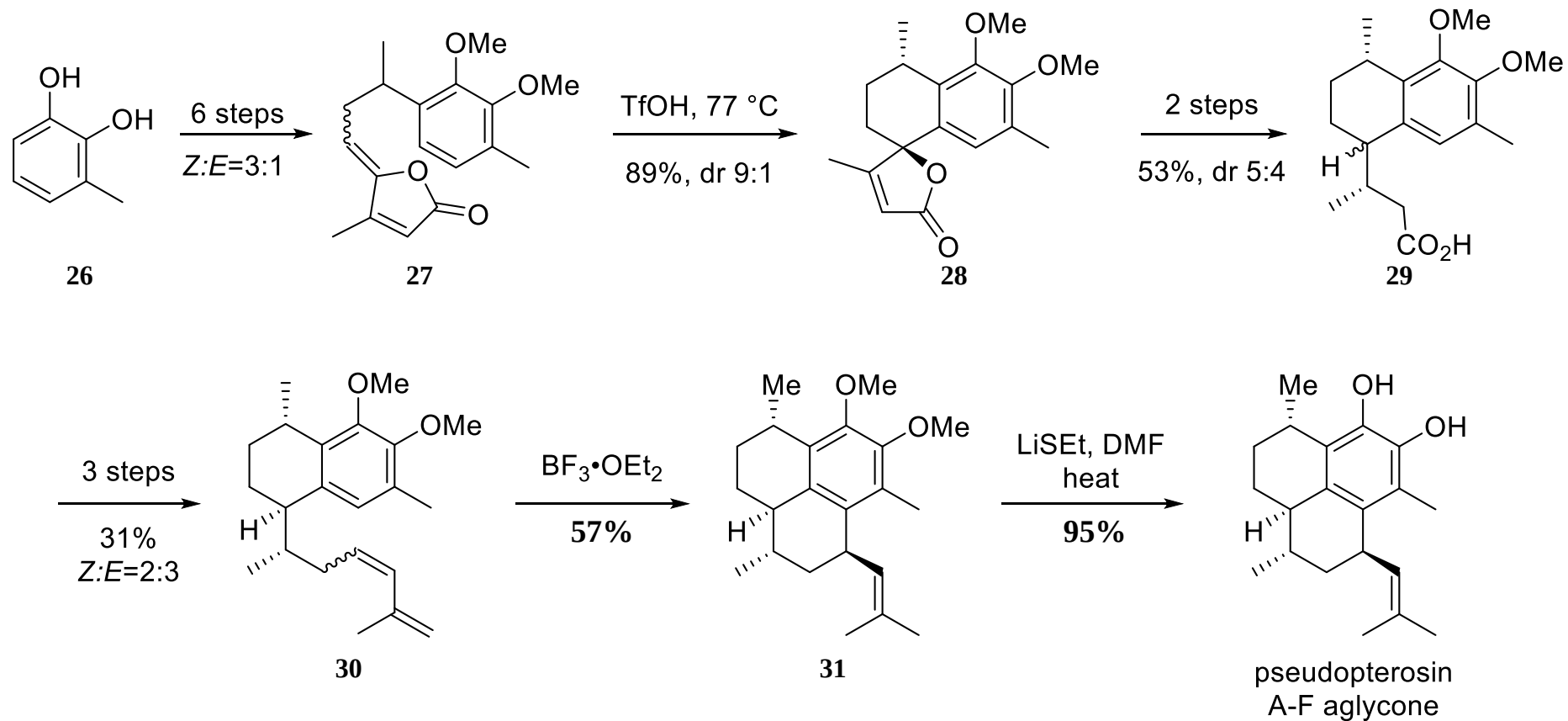
15 steps (5.79%)



Synthesis

Harrowven (2004)

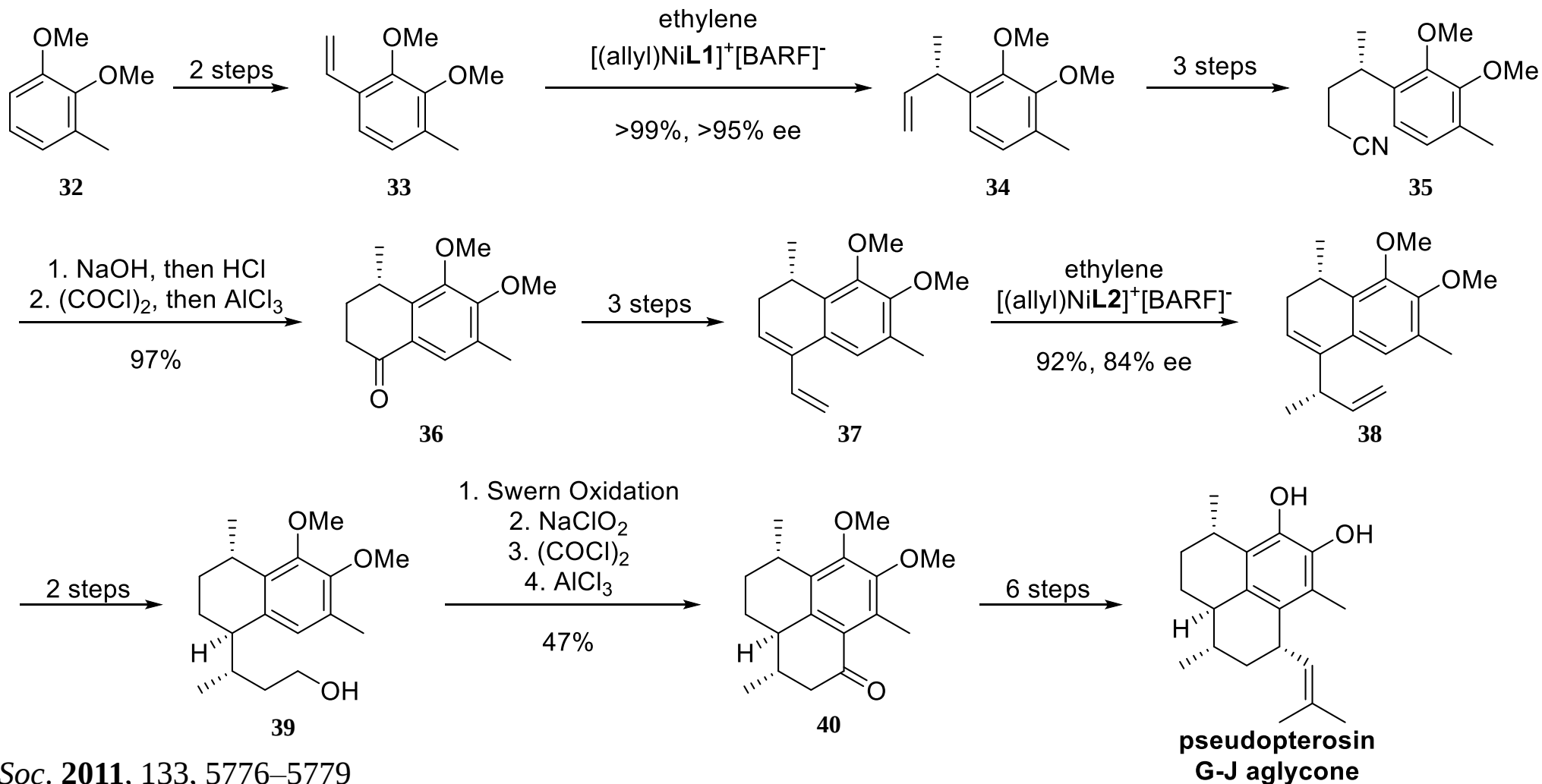
14 steps (2.66%)



Synthesis

RajanBabu (2011)

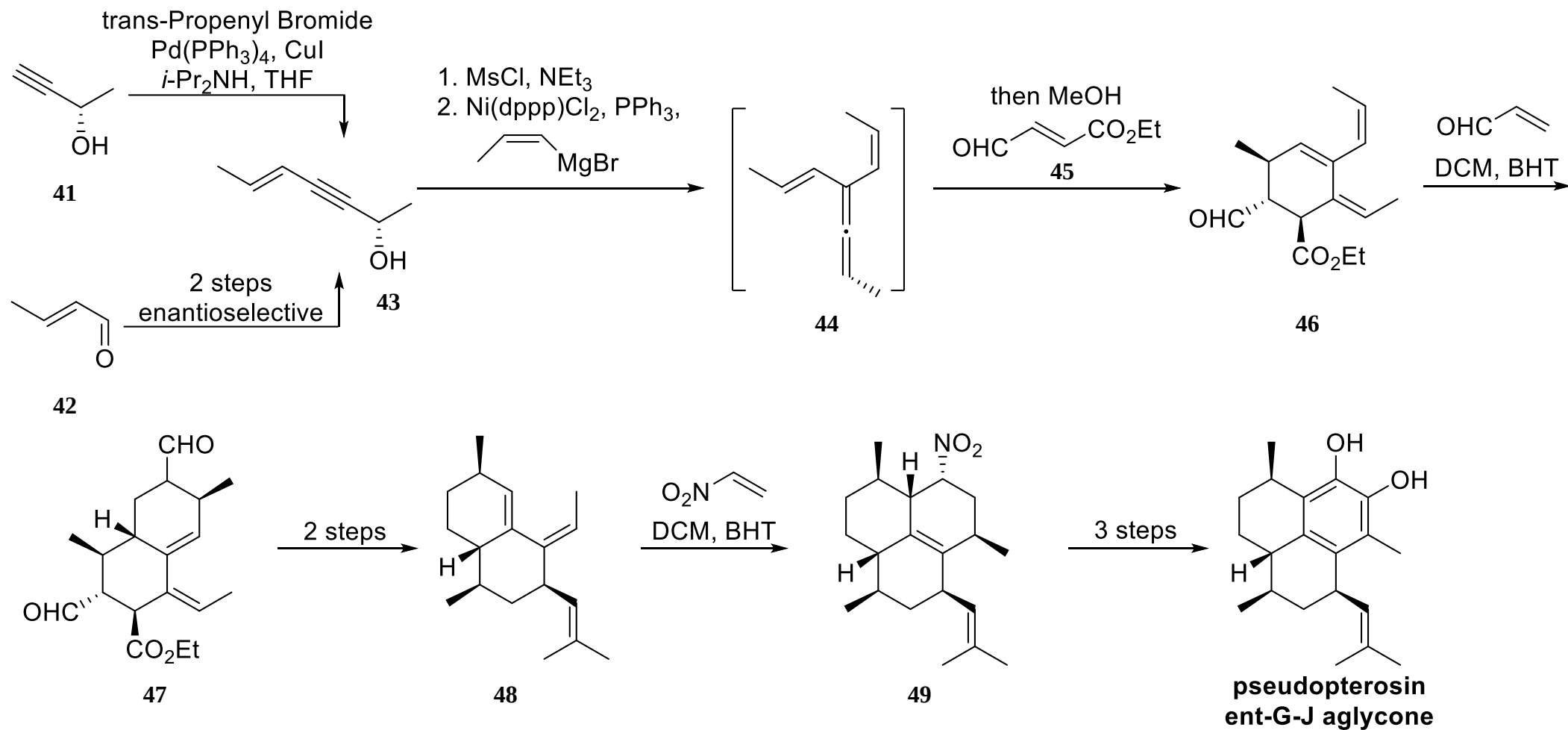
22 steps for pseudopterosin A-F aglycone; 24 steps for pseudopterosin G-J aglycone. The yield of compound is 28.3%



Synthesis

Sherburn (2015)

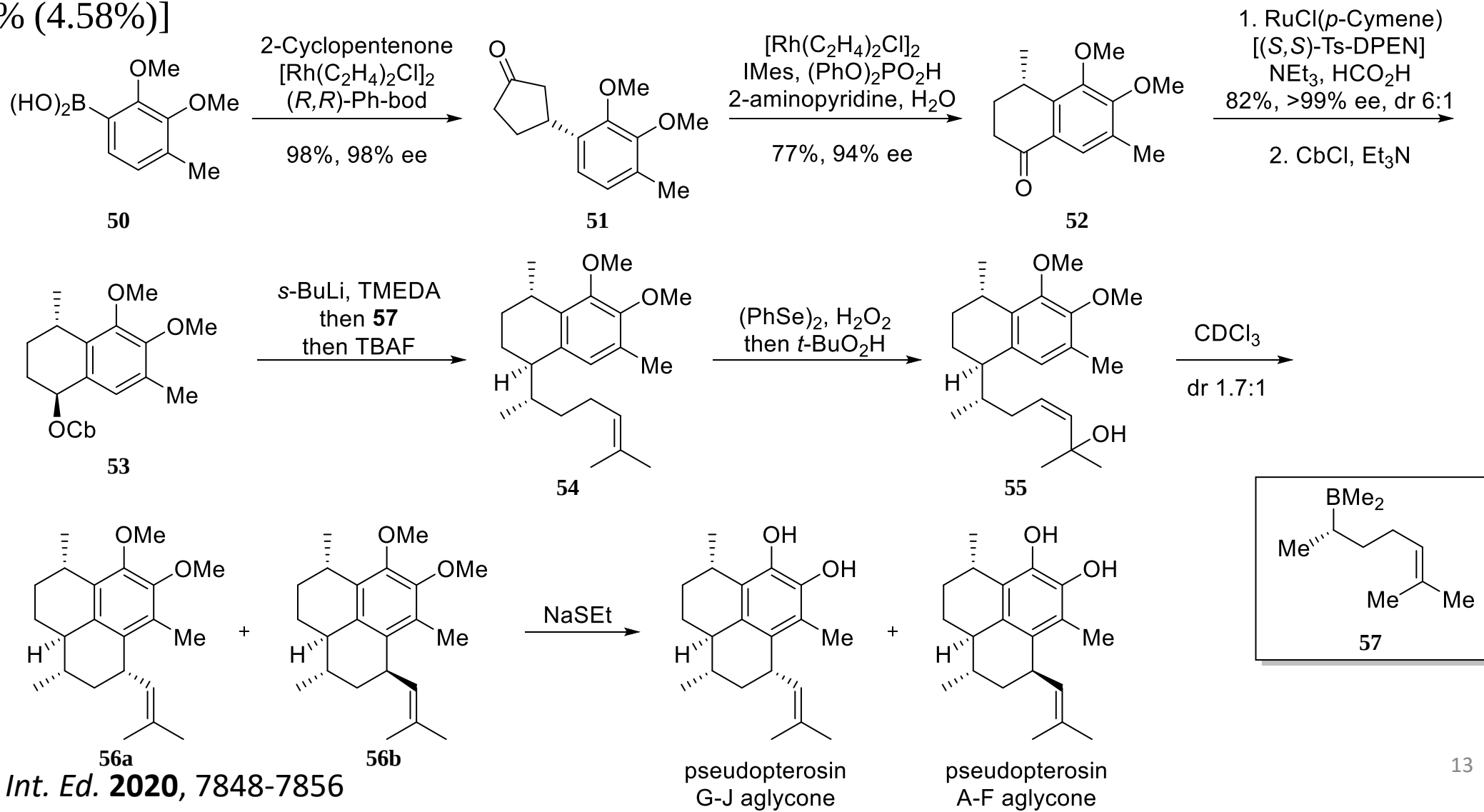
11/10 steps for pseudopterosin ent-G-J aglycone (2.40% / 4.55%)



Synthesis

Dong (2020)

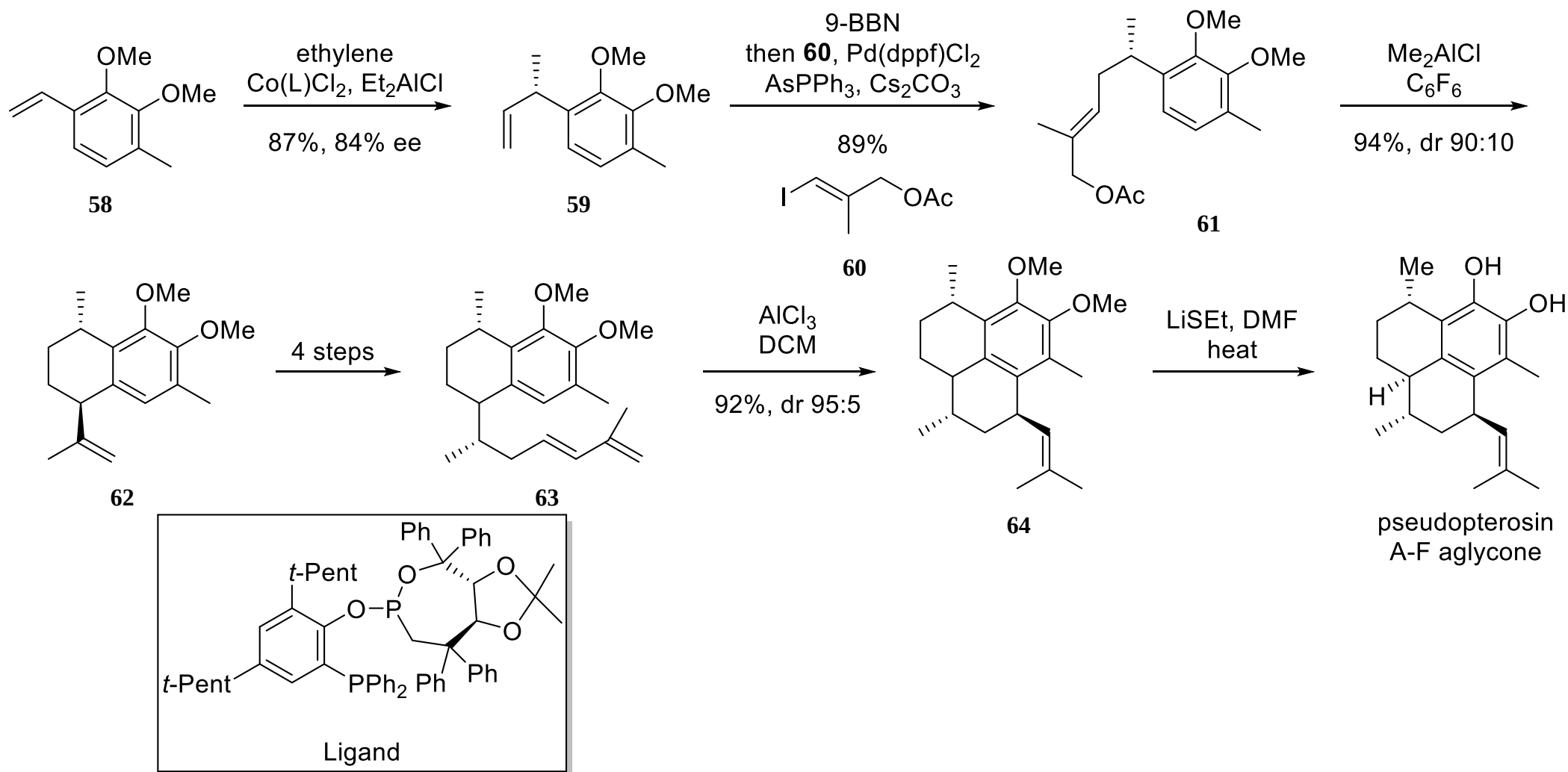
8 (9) steps for pseudopterosin A-F aglycone [5.79% (2.61%)] and pseudopterosin G-J aglycone [10.4% (4.58%)]



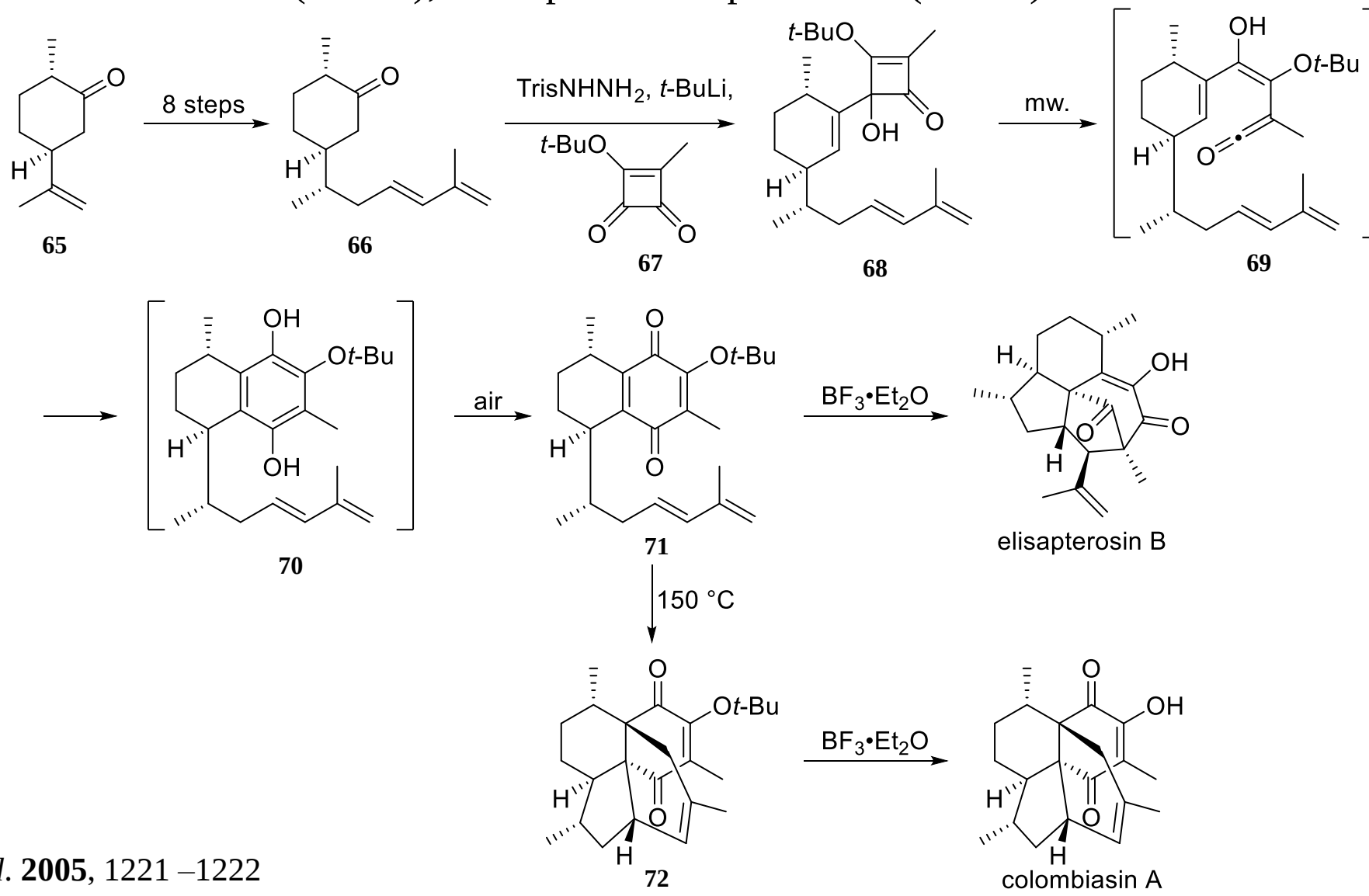
Synthesis

Schmalz (2021)

9 (12) steps [25.7% (14.9%)]



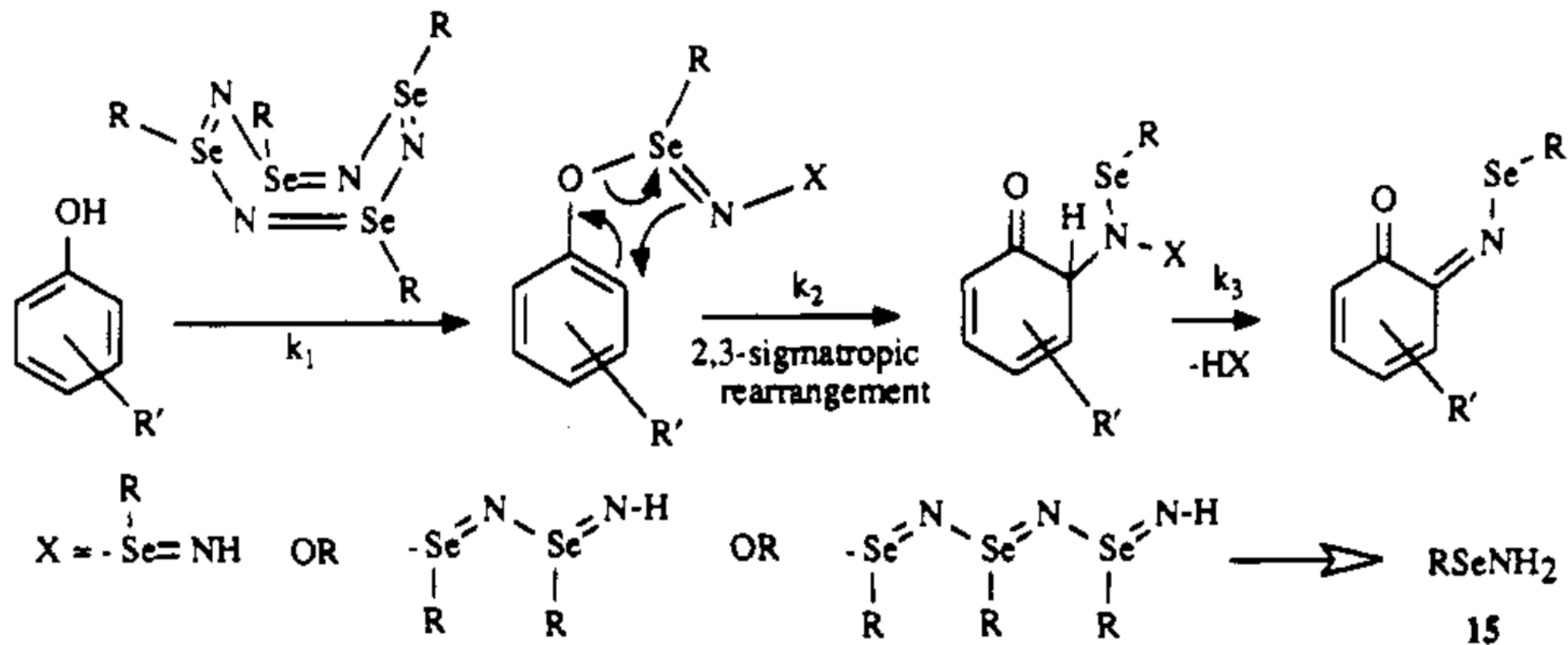
13 steps for colombiasin A (2.47%); 12 steps for elisapterosin B (3.68%)



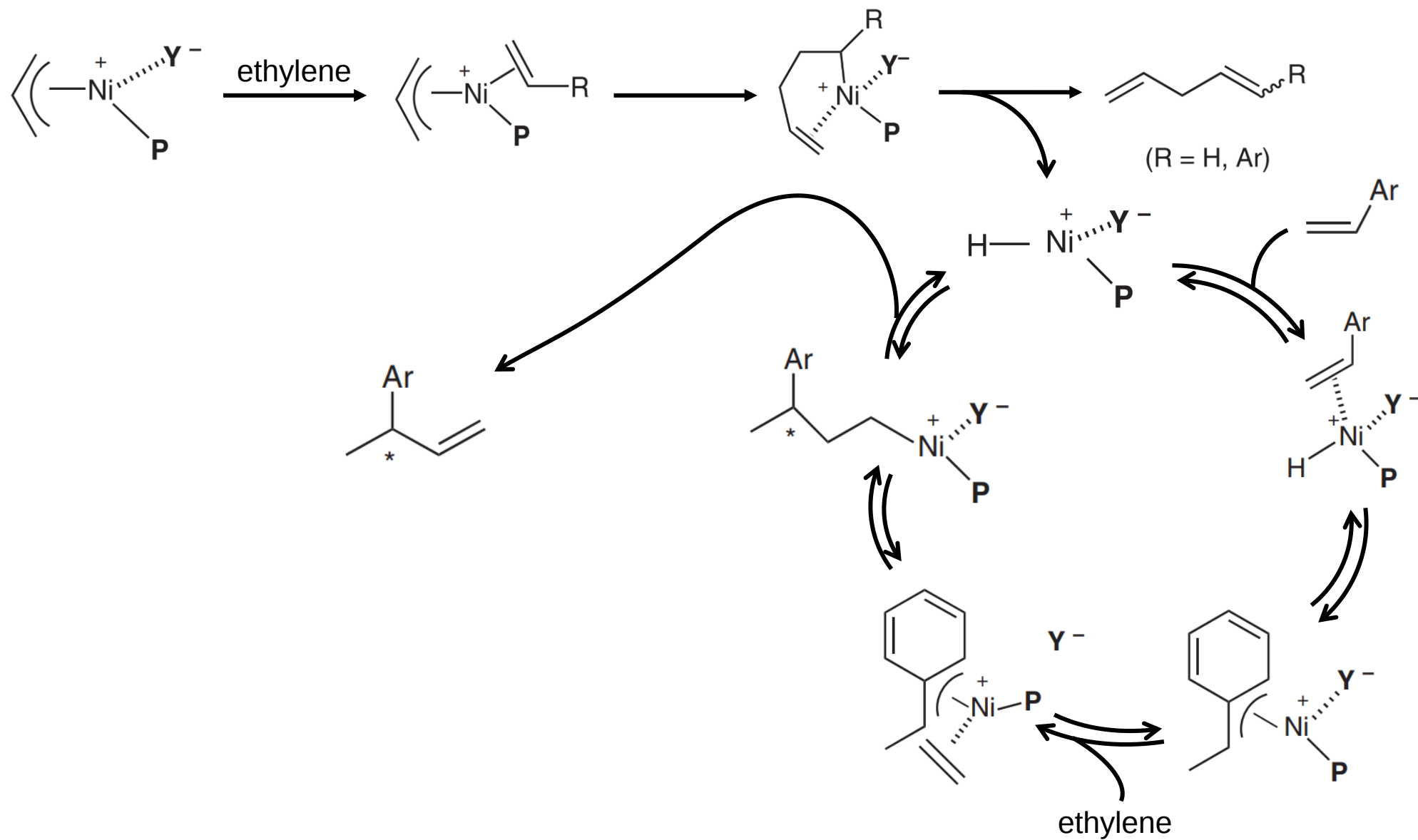
1. *Journal of Management Studies*, 1996, 33, 1, 1-14.



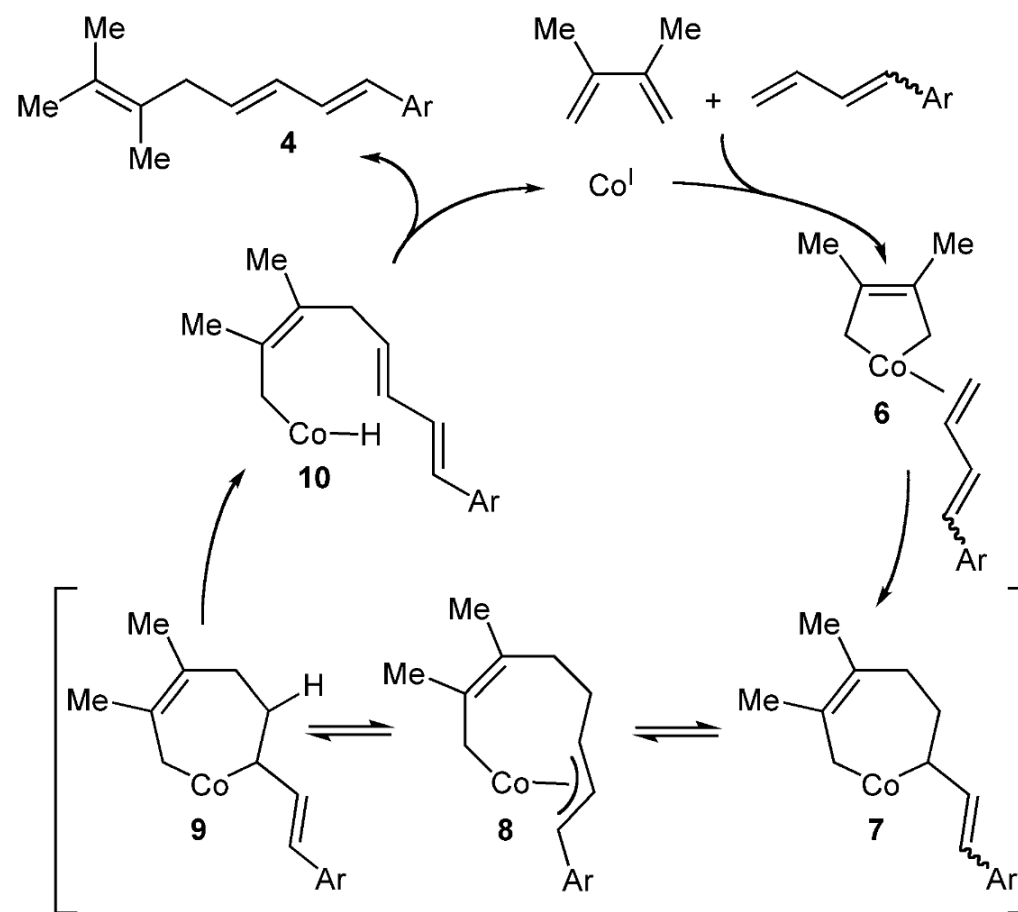
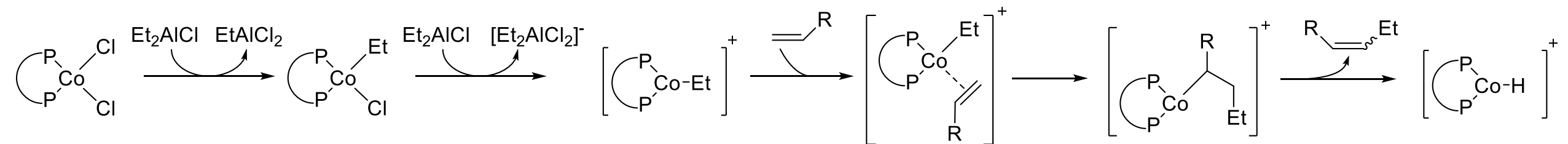
Supplementary



Supplementary



Supplementary



Supplementary

