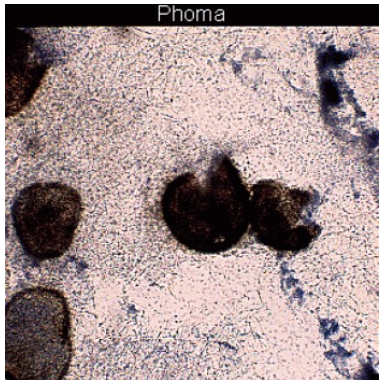
SOTW: Phomactins

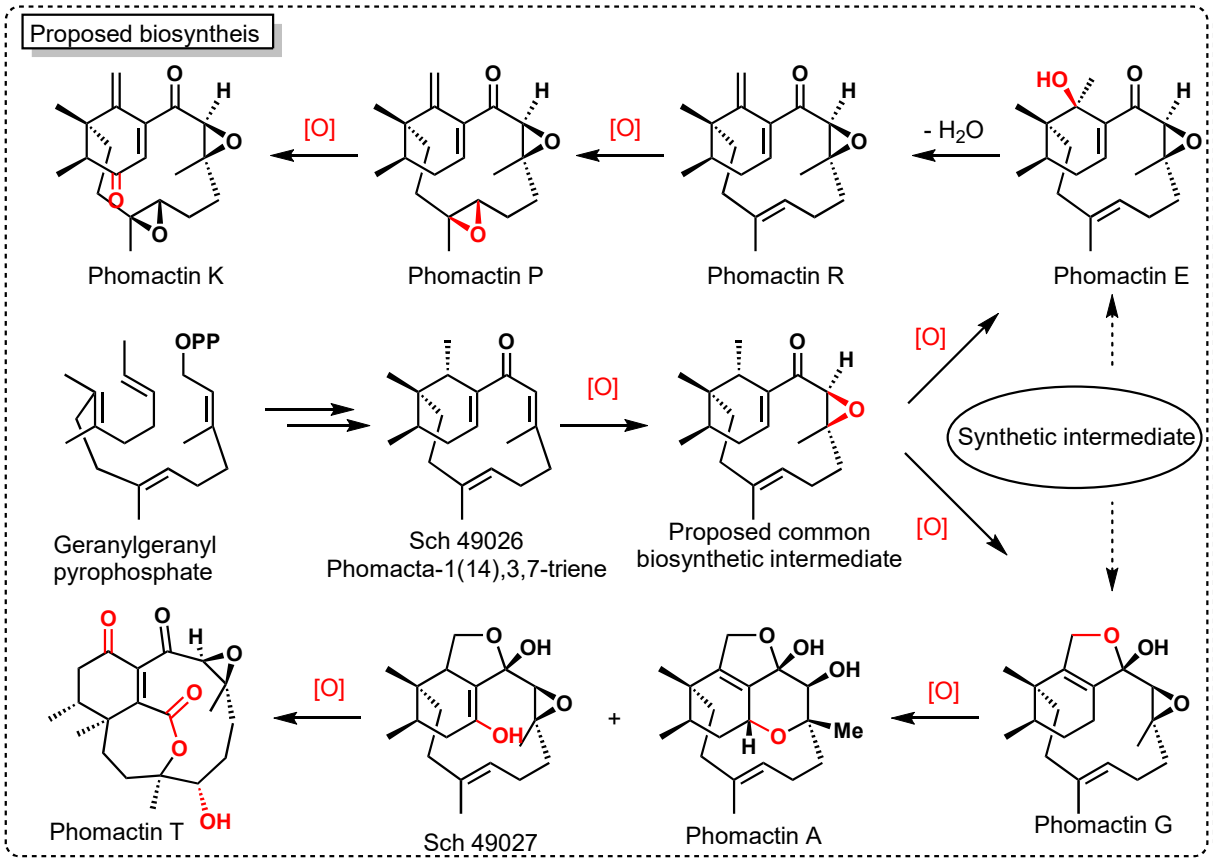


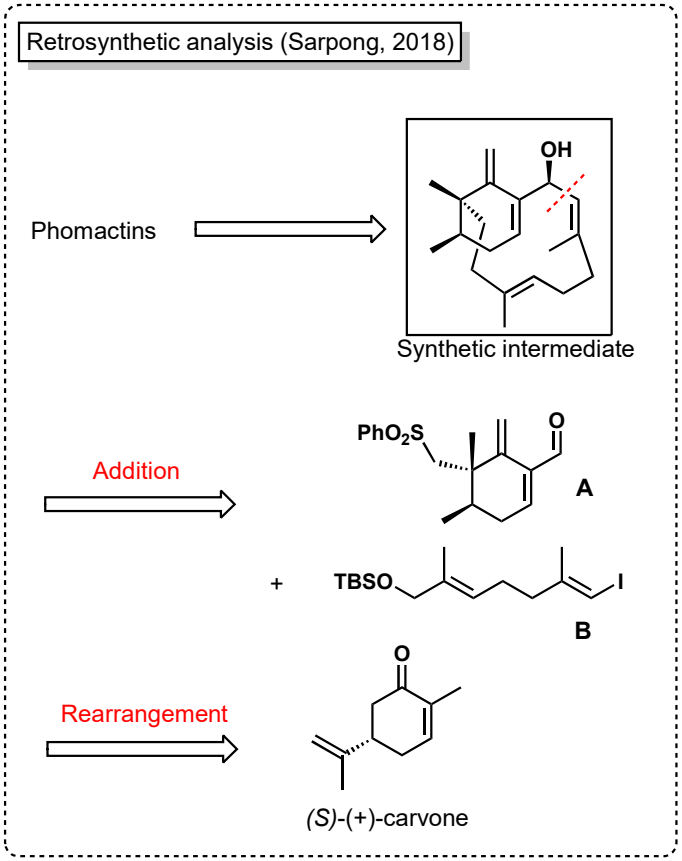
Isolation:
- Phomactin A first isolated in 1991 by Sato group from cultures of fungus *Phoma sp.*
- Additional phomactins and related species have been produced and reported later
- 27 phomactins have isolated so far

Biological activity
- Shows a potent Platelet Activating Factor Receptor (PAFT) antagonist activity which inhibits the repopulation of tumor cells

Structural features/syntheses
- Bicyclo[9.3.1]pentadecane core comprised of a cyclohexenyl ring and macocyclic "strap" that bridges the ring
- 4 racemic syntheses, 2 enantioenriched syntheses have reported

Review: *Org. Prep. Proced. Int.* **2014**, *46,* 214-251. Full paper: *Nature Chem.* **2018**, *10*, 938-945.





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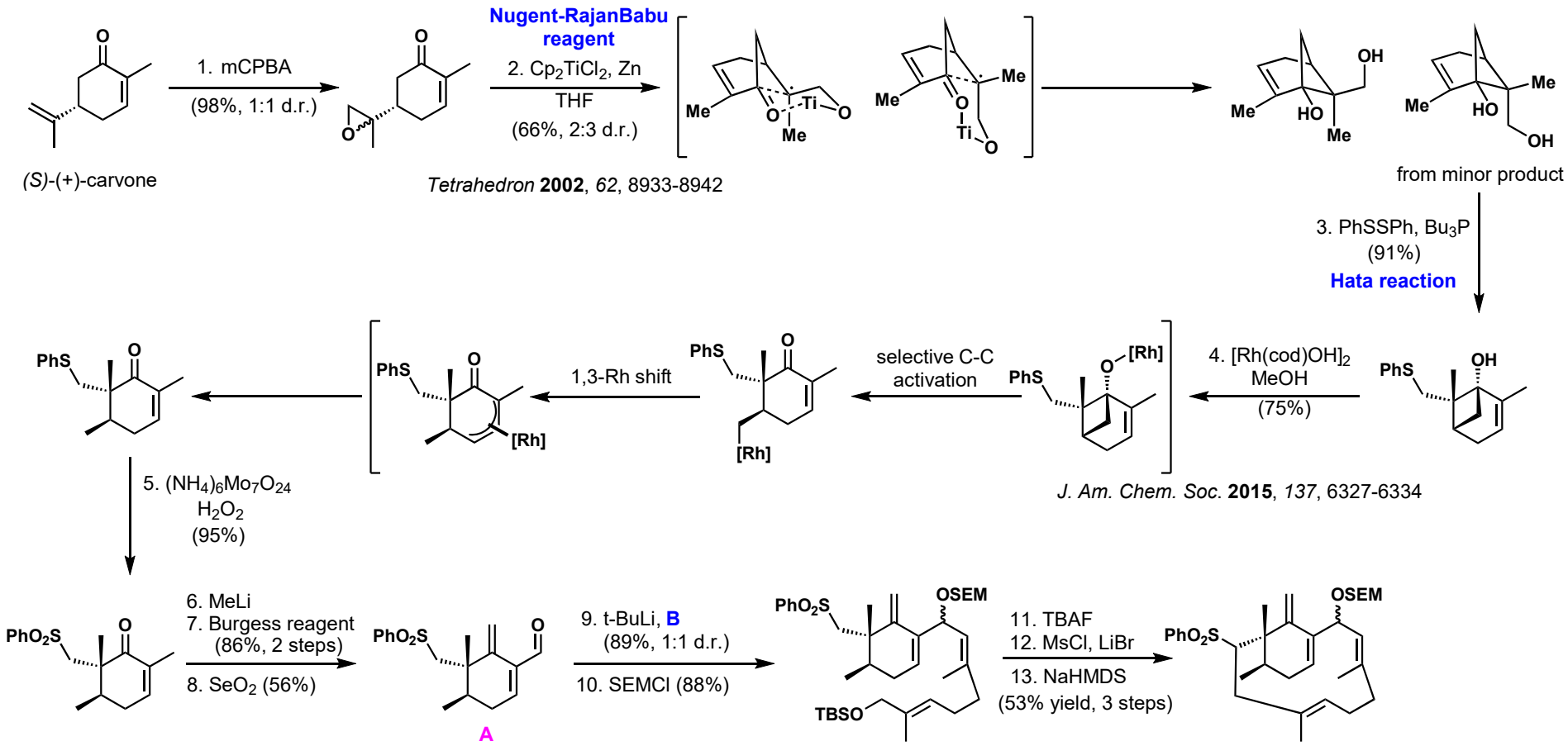

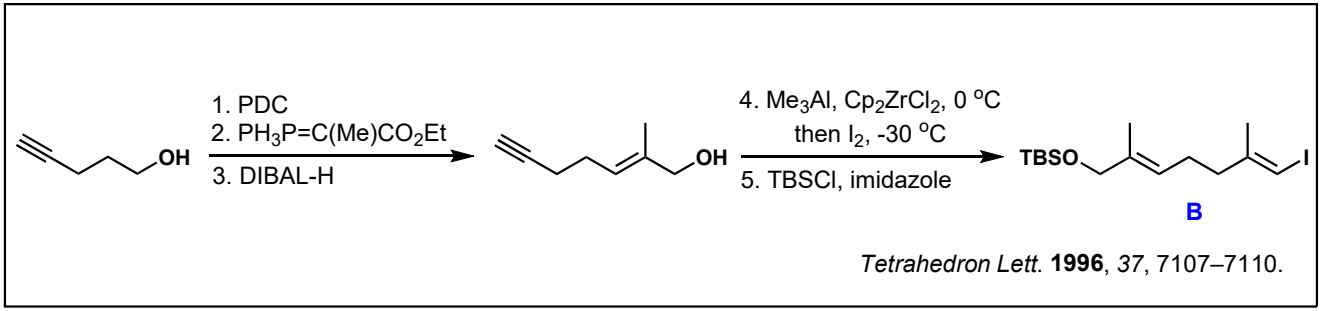

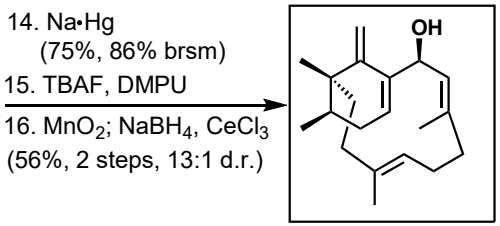

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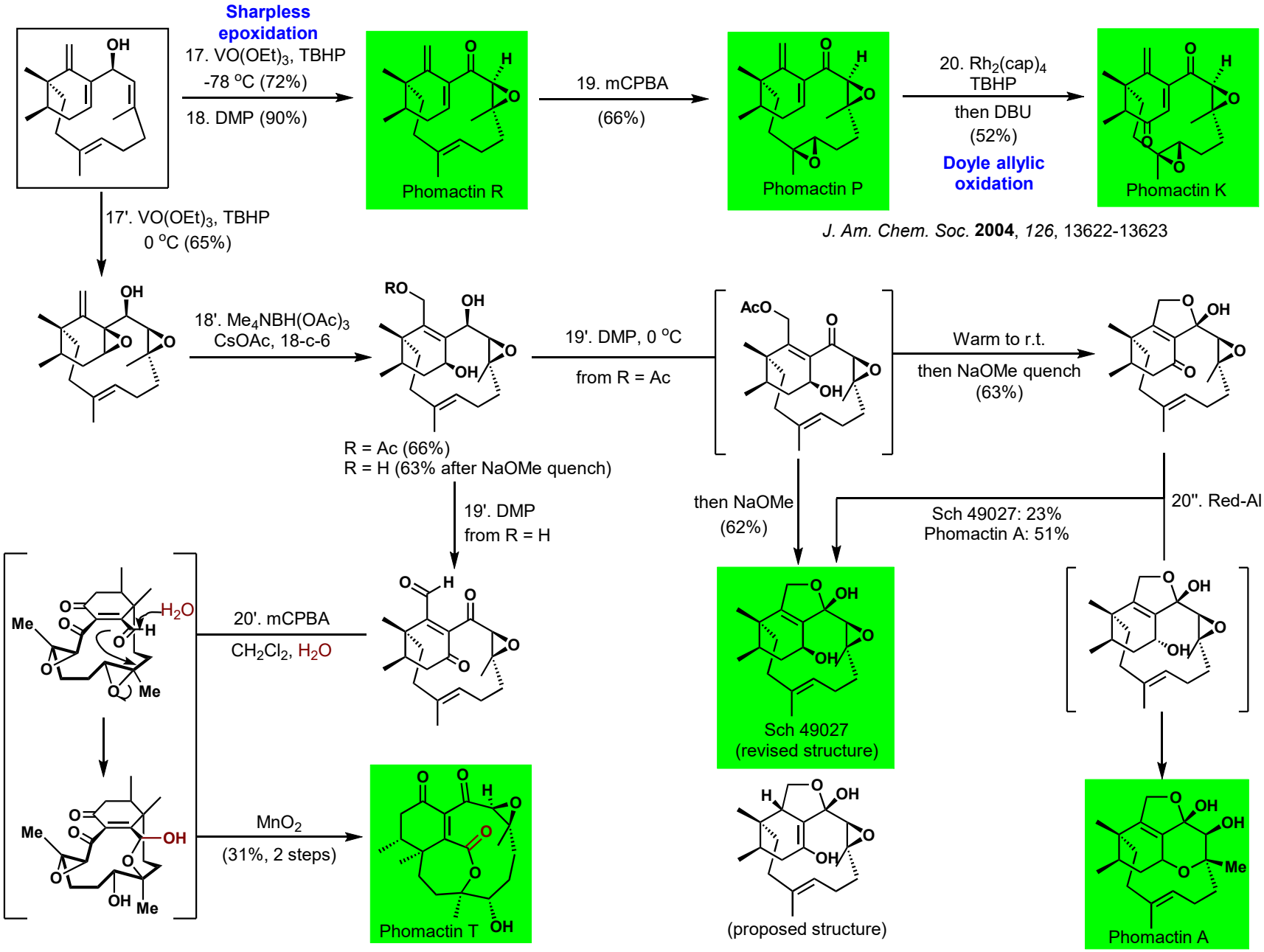

J. Am. Chem. Soc. **2004**, *126*, 13622-13623