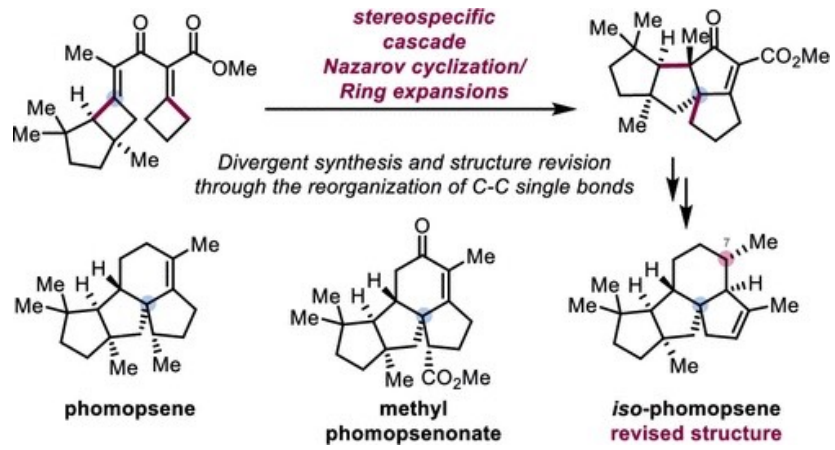


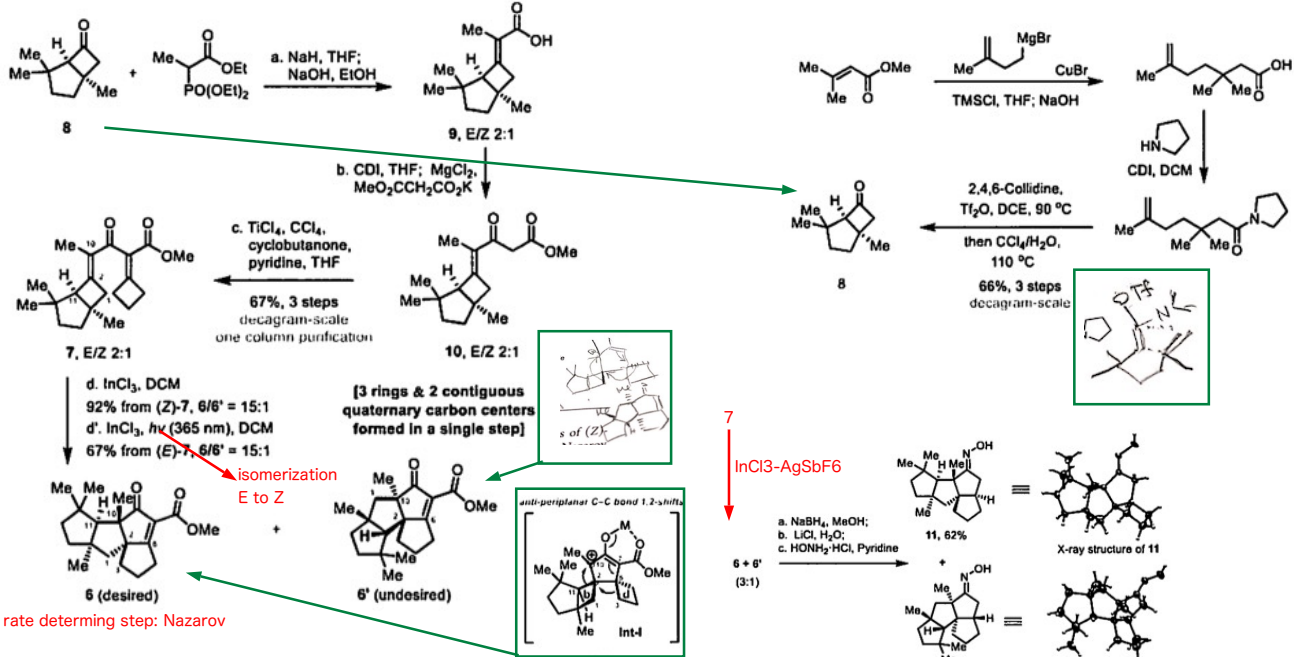
Total Syntheses of Polycyclic Diterpenes Phomopsene, Methyl Phomopsenonate, and iso-Phomopsene via Reorganization of C-C Single Bonds
 Jun-Jie Yin, Yun-Peng Wang, Jun Xue, Feng-Fan Zhou, Xing-Qian Shan, Rong Zhu, Kun Fang, Lei Shi*, Shu-Yu Zhang, Si-Hua Hou*, Wujiong Xia, and Yong-Qiang Tu*
 Cite this: J. Am. Chem. Soc. 2023, 145, 39, 21170–21175

synergistic Nazarov/double ring expansions

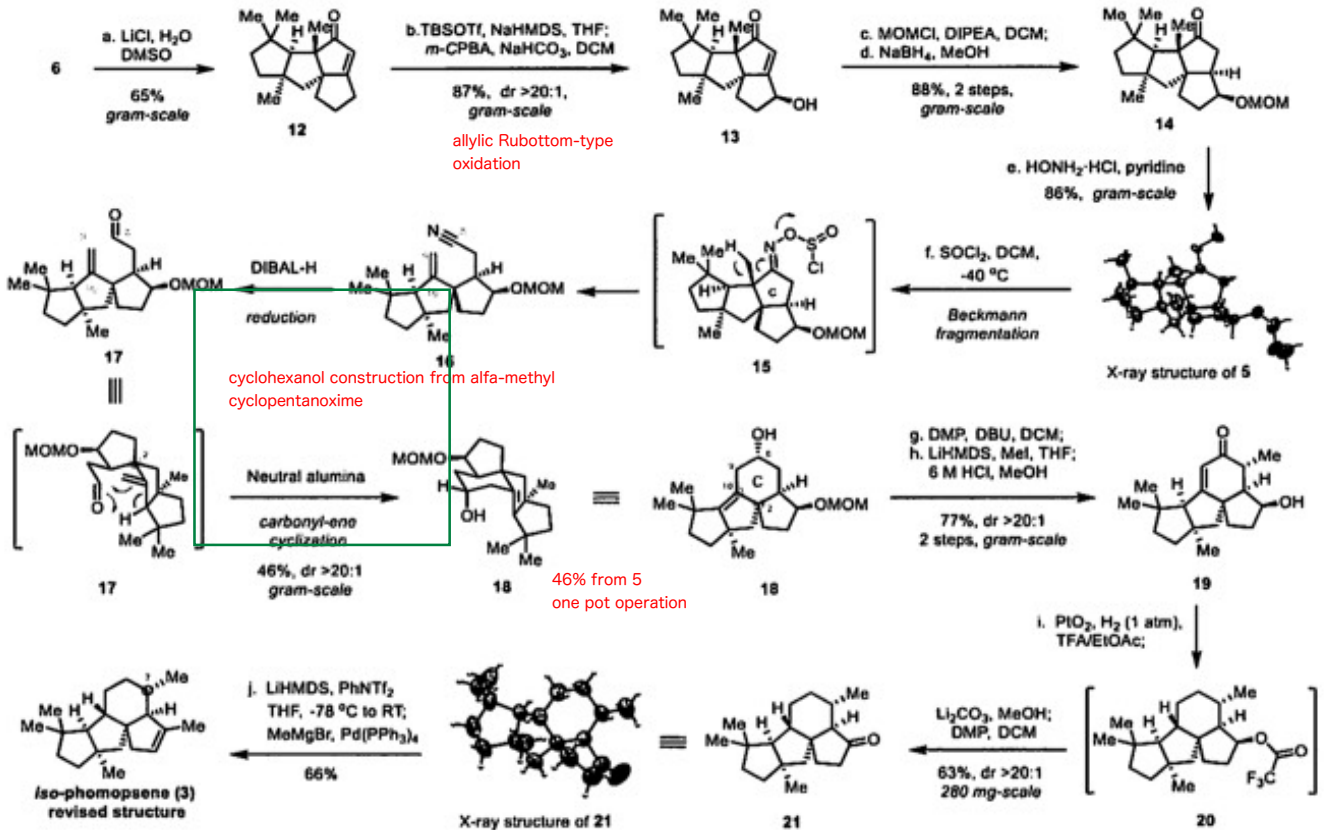
ring expansion through Beckmann fragmentation/recombination



Scheme 2. Preparation of 5/5/5/5 Tetracycle via Tandem Nazarov Cyclization/Double Ring Expansions Reaction

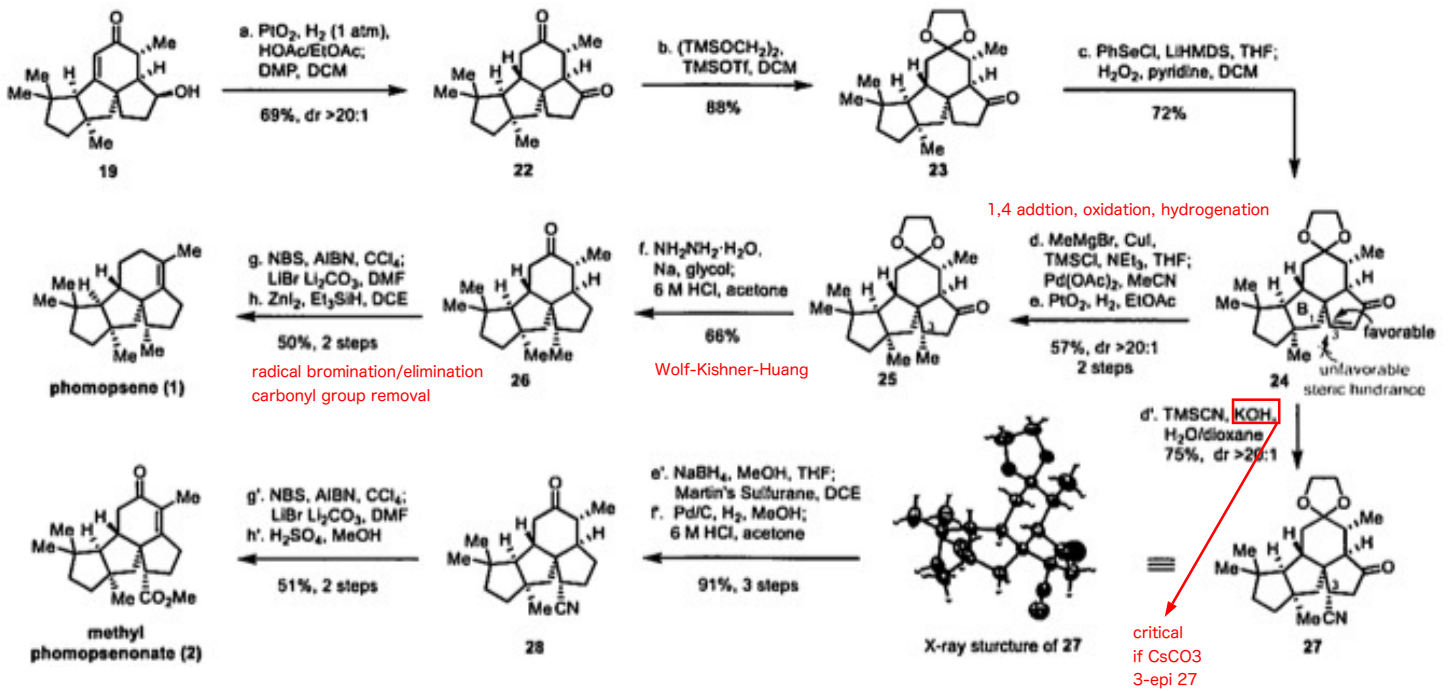


Scheme 3. Total Synthesis and Structure Revision of iso-Phomopsene



(revised to prepare originally proposed structure)

Scheme 4. Total Syntheses of Phomopsene and Methyl Phomopsenonate



Scheme 5. Enantioselective Syntheses of 1–3

