

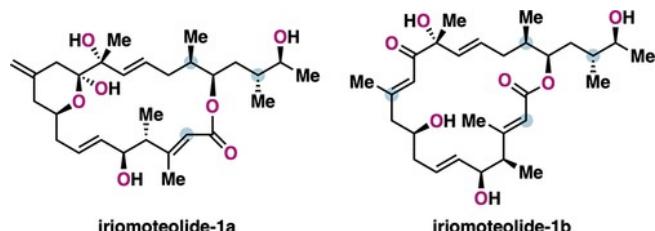
Iriomoteolide-1a and -1b: Structure Elucidation by Integrating NMR Spectroscopic Analysis, Theoretical Calculation, and Total Synthesis

Tomohiro Obana, Miyu Nakajima, Kazuki Nakazato, Hayato Nakagawa, Keisuke Murata, Masashi Tsuda*, and Haruhiko Fuwa*

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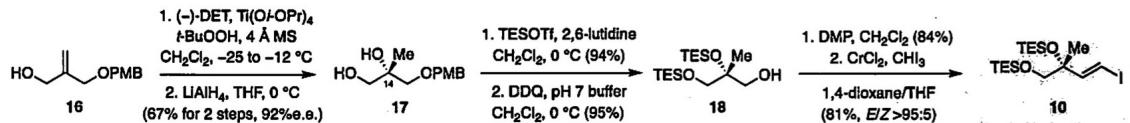
Even though nine stereoisomers of the proposed structure 1 have been synthesized, no one has reached the correct structure so far.

: one of "current challenging molecules for configurational assignment."

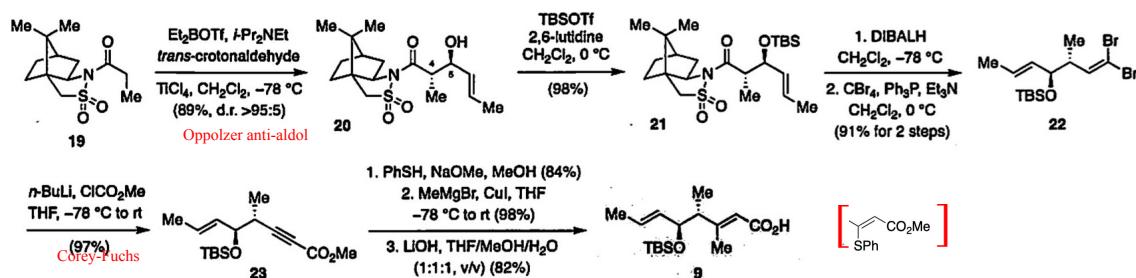


- | | |
|---------------------------------|-----------------------------------|
| 1. NMR analysis/MM calculations | 3. DFT calculations/DP4+ analysis |
| 2. model synthesis | 4. total synthesis |

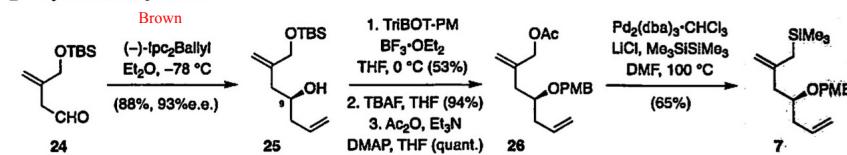
B Synthesis of Iodoolefin 10



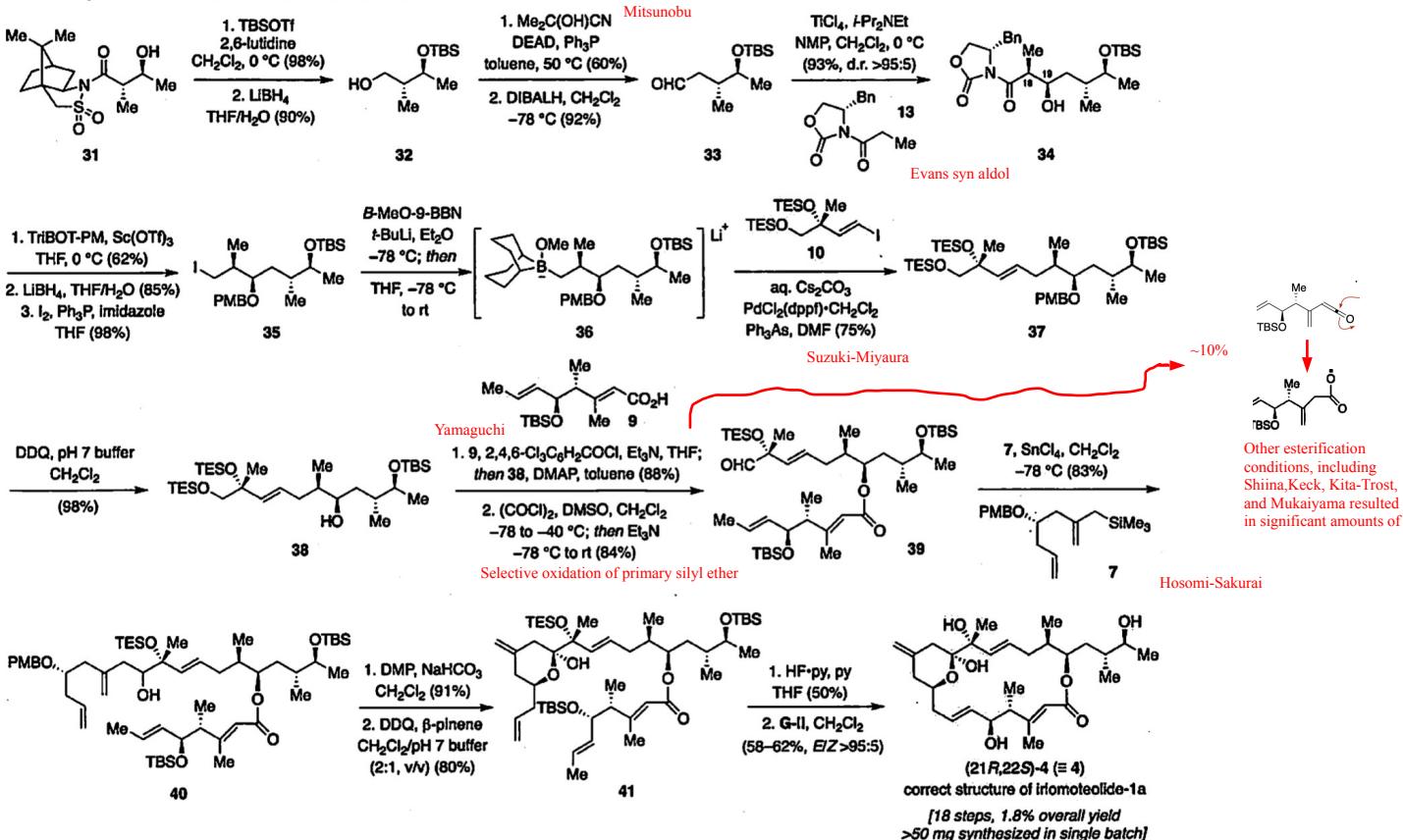
C Synthesis of α,β-Unsaturated Carboxylic Acid 9



D Synthesis of Allylsilane 7



B Total Synthesis of Correct Structure of Iriomoteolide-1a



C Transformation of Synthetic Iriomoteolide-1a to Iriomoteolide-1b

