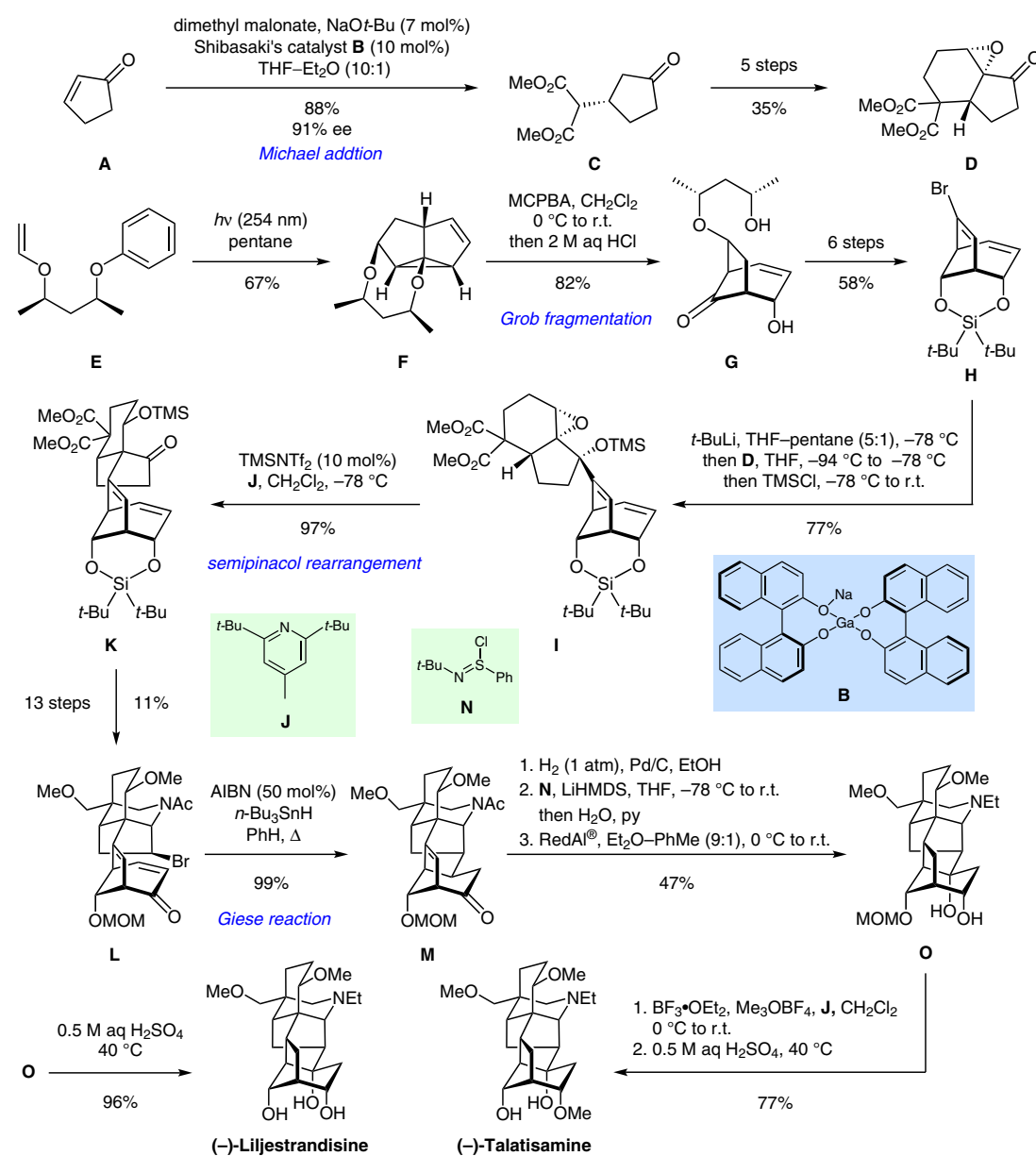


A. R. WONG, N. J. FASTUCA, V. W. MAK, J. K. KERKOVIOUS, S. M. STEVENSON, S. E. REISMAN* (CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, USA)
 Total Syntheses of the C₁₉ Diterpenoid Alkaloids (-)-Talisamine, (-)-Liljestrandisine, and (-)-Liljestrandinine by a Fragment Coupling Approach
 ACS Cent. Sci. 2021, 7, 1311–1316, DOI: 10.1021/acscentsci.1c00540.

Synthesis of (-)-Talisamine and (-)-Liljestrandisine



Significance: Reisman and co-workers report a convergent fragment coupling approach to the aconitine-type alkaloids (-)-talisamine, (-)-liljestrandisine, and (-)-liljestrandinine. The structure of (-)-liljestrandisine was revised.

Comment: 1,2-Addition of lithiated bromide **H** to ketone **D** gave **I** after in situ TMS protection. TMSNTf₂ mediated the key semipinacol rearrangement that led to ketone **K**. This was elaborated to the full carbon skeleton of the natural product in 14 steps.

SYNFACTS Contributors: Erick M. Carreira, Moritz E. Hansen
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Synthesis of Natural Products and Potential Drugs

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Giese reaction

semipinacol rearrangement

(-)-talisamine

(-)-liljestrandisine

Synfact of the Month

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