Significance: The authors present the synthesis of (±)-marasmic acid, one of the fungal metabolites isolated from Basidiomycetes. The structure features a hydrindane with a cis relationship between the cyclopropane ring and the vicinal hydrogen at the ring fusion.

Comment: The synthetic endeavors start with a Diels-Alder reaction that results in two inconsequential regioisomers. Convergent alkylative cyclopropanation of the mixture gives a single tetracylic product **H**. Diol **I** is converted to the corresponding dichloroformate L and subsequently oxidized to obtain dialdehyde M. Finally, treatment with trifluoroacetic acid affords (±)-marasmic acid.

SYNFACTS Contributors: Erick M. Carreira, Sander Folkerts Synfacts 2024, 20(01), 0007 Published online: 08.12.2023 **Synthesis of Natural**

Key words

(±)-marasmic acid

fungal metabolite of Basidiomycetes

Diels-Alder reaction

alkylative cyclopropanation



This document was downloaded for personal use only. Unauthorized distribution is strictly prohibited.