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Total Synthesis of (+)-Haperforin G
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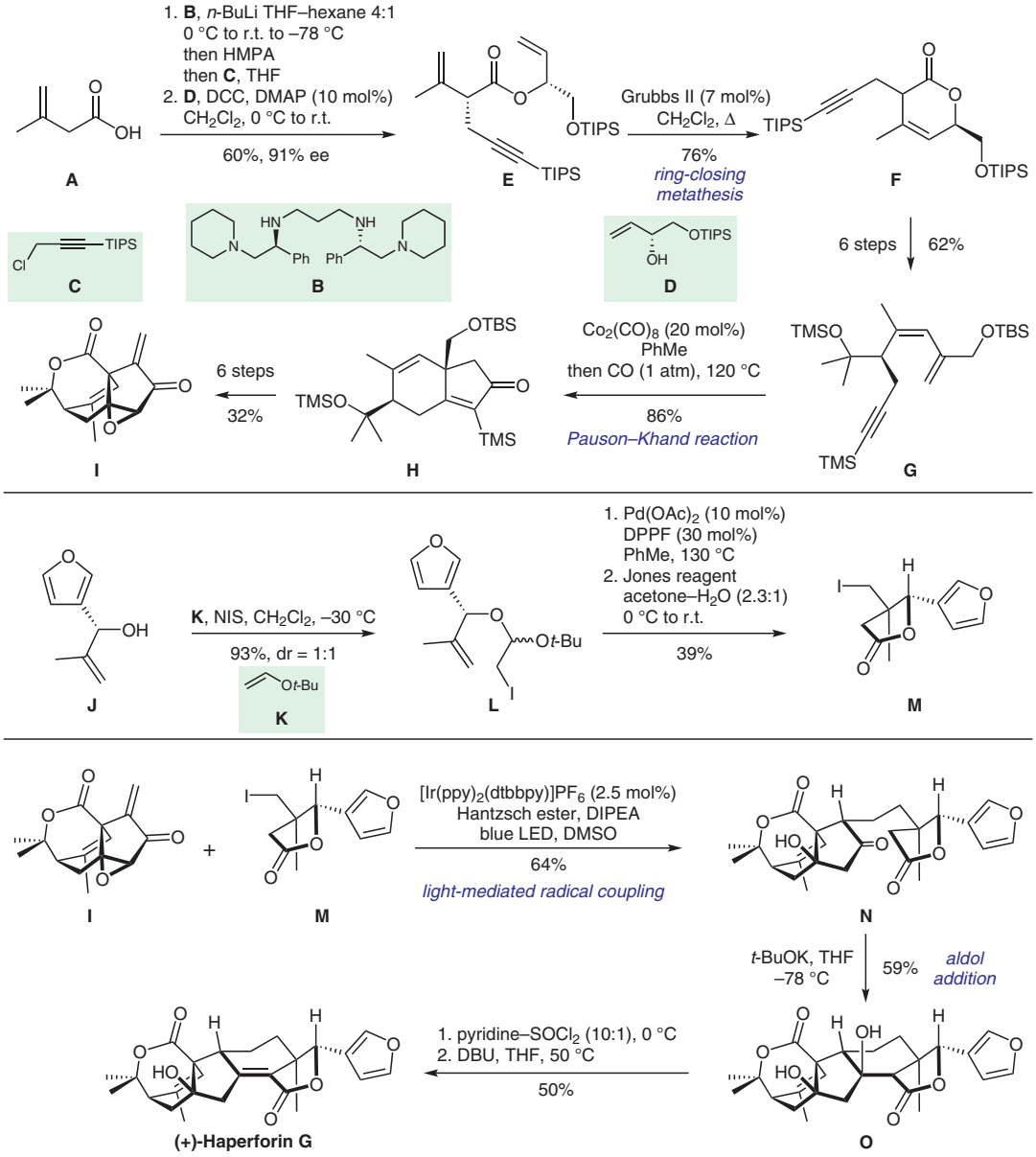
Synthesis of (+)-Haperforin G



Significance: Chen, Yang, and co-workers report the first total synthesis of (+)-haperforin G, a structurally complex member of the limonoid family of tetranortriterpenoid natural products. Their synthesis features an efficient radical coupling of two fragments.

Comment: Intermediate **G** is accessed from **A** in nine steps and transformed to **H** via a Pauson–Khand reaction. Further six steps give rise to **I**, which is then joined with **M** via a light-mediated radical-based coupling to obtain **O**.

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Category

Synthesis of Natural Products and Potential Drugs

Key words

(+)-haperforin G

limonoids

tetranortriterpenoids

ring-closing metathesis

Pauson–Khand reaction

light-mediated radical coupling

aldol addition

Synfact of the Month