Total Synthesis of (±)-Phainanoid A

Significance: Dong and co-workers report the total synthesis of ($\pm$)-phainanoid A, a dammarane-type triterpenoid featuring a complex scaffold consisting of ten rings and 13 chiral centers.

Comment: The cyclobutane moiety in **J** was accessed via Pd-catalyzed intramolecular alkenylation. The five-membered ring in the natural product was achieved with a 1,4-addition, which was followed by homoallylic elimination to form the three-membered ring.

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Synthesis of Natural Products and Potential Drugs

Key words

(±)-phainanoid A

dammarane
triterpenoid

radical polyene
cyclization

**semipinacol
rearrangement**

**intramolecular
alkenylation**

Synfact of the Month