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Divergent Total Syntheses of Enmein-Type Natural Products: (-)-Enmein, (-)-Isodocarpin, and (-)-Sculponin R *Angew. Chem. Int. Ed.* **2018**, *57*, 6333–6336.

Divergent Approach to Enmein-Type Natural Products

Significance: Dong and co-workers have attained three highly oxygenated *ent*-kaurenoids from the *isodon* family of natural products by means of total synthesis. The significance of the work lies in the expeditious construction of key intermediate **L**, which was subsequently utilized as a common starting point in the preparation of (–)-sculponin R, (–)-isodocarpin, and (–)-enmein.

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Comment: The authors commenced their synthetic route with the assembly of bicyclic ketone E by Diels-Alder cycloaddition. Birch reduction provided access to acetal G, which was subsequently transformed into enone I. In a single pot, Dong and co-workers constructed pivotal vinyl bromide L. Relying on reductive alkenylation strategies, this pentacycle was used to access the three highlighted natural products.

Category

Synthesis of Natural Products and Potential Drugs

Key words

Diels-Alder reaction

Birch reduction

reductive alkenylation

ent-kaurenoids

