Asymmetric Total Synthesis of (+)-Aplysiasecosterol A

Synfact
of the month

Significance: The first total synthesis of (+)-aplysiasecosterol A is reported by Li and co-workers in 14 steps (longest linear sequence). Key features include an iron-mediated HAT radical cyclization, an asymmetric allylation, and a Zweifel-Evans olefination.

SYNFACTS Contributors: Erick M. Carreira, Felix Pultar
 Synfacts 2018, 14(10), 1001 Published online: 17.09.2018
 DOI: 10.1055/s-0037-1610894; Reg-No.: C05018SF

Comment: Recognition of hidden symmetry in the core of the target structure allowed the clever application of a desymmetrization strategy starting from achiral dione **A**. Advanced intermediate **P** was assembled from bromide **H** and aldehyde **O**. Radical cyclization and deprotection led to the natural product.