Studies Toward the Synthesis of Daphnicyclidin A

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*Daphniphyllum* alkaloids are a family of complex, polycyclic natural products derived from evergreen shrubs in southern China. The daphnicyclidins represent a subset of these alkaloids as exemplified by daphnicyclidin A (1). A stereocontrolled synthesis of the tricyclic ABC ring system will describe the formation of the amine 2 via a novel nine-membered Z-enone. The discussion will present methodology for an efficient preparation of α-linked bis-enones as well as novel features of reactivity directly leading to functionalized heterocyclic systems. Applications of this methodology for synthesis of the condensed fulvene of 1 will be described.

![Chemical structures](image_url)