

Total Synthesis of Disorazole B₁ and Its Analogues †

Parthasarathi Subramanian ^{1,*}

¹ Department of Chemistry, Indian Institute of Technology Kanpur, Uttar Pradesh 208016;

* Correspondence: parthas@iitk.ac.in (P.S.);

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Abstract: Comprising of numerous synthetically challenging natural products, the disorazole family (figure 1) of compounds attracted the interest of synthetic chemists and biologists alike due to their novel molecular structures and potent antitumor properties. Taking advantage of the C₂-symmetry of the antitumor naturally occurring disorazole B₁ molecule, a symmetrical total synthesis was devised with a monomeric advanced intermediate as the key building block, whose three-step conversion to the natural product allowed for an expeditious entry to this family of compounds. Application of the developed synthetic strategies and methods provided a series of designed analogs of disorazole B₁.

Keywords: Disorazole family; synthetic routes; biological activity.

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Conflicts of Interest

The authors declare no conflict of interest.

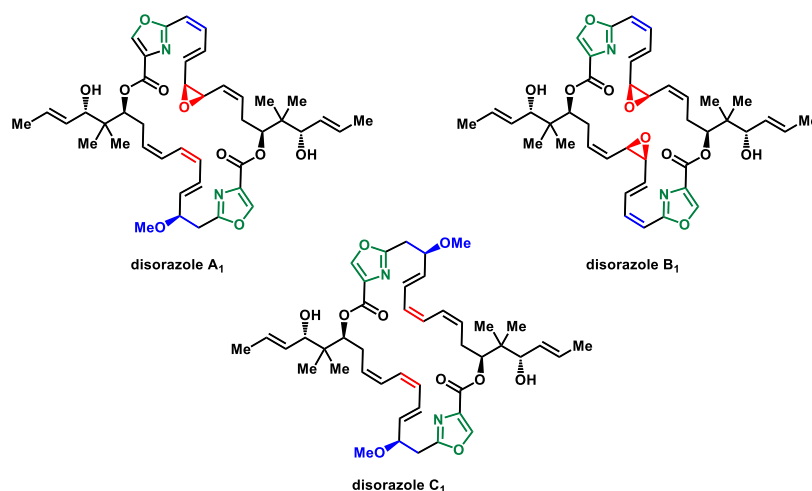


Figure 1. Disorazole natural products.

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