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A Total Synthesis of Norhalichondrin B

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Synthesis of Norhalichondrin B

Significance: Norhalichondrin B is a marine polyether with potent cytotoxicity. Key to this synthetic approach are the Nozaki–Hiyama–Kishi reactions and the tandem Achmatowicz oxidation–ionic hydrogenation which form the pyranopyran systems.

Comment: The Nozaki–Hiyama–Kishi reactions were run in the presence of chiral ligand **I** where R was either methyl or naphthyl. The Achmatowicz oxidation–hydrogenation was highly diastereoselective (dr > 20:1).

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Category

Synthesis of Natural Products and Potential Drugs

Key words

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chromium

SYNFACT
of the month