Total Synthesis of Lycoricidine and Narciclasine by Chemical Dearomatization of Bromobenzene

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R = H, lycoricidine R = OH, narciclasine

R = H, 7-deoxypancratistatin R = OH, pancratistatin

- Lycoricidine, narciclasine are well-known anticancer agents, exhiting submicromolar inhibitory activity against mutiple cancer cell lines.
- These alkaloids possess a highly functionalized aminocyclitol core with four contiguous stereocenters
- This work presented the total synthesis of lycoricidine and narciclasine based on a chemical based dearomatization of bromobenzenes as well as a general method for the preparation of 4-aryl-substituted cis-dihydrodiols.

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Synthesis Analysis

OH C) 2,2-DMP OH C) 2,2-DMP OH CO₂Me
$$CO_2$$
Me CO_2 Me

ÖTIPS

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