

## Diastereocontrol in Intermolecular Diels-Alder Reactions of Allenic Lactones: Synthetic Approach to the Plaunols

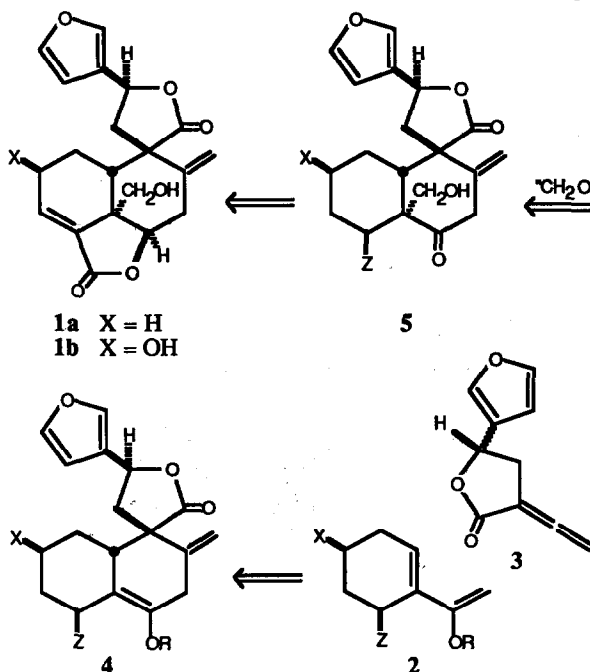
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**Summary:** Diels-Alder cycloaddition of the allenic lactone **11** with 1-(1-(*t*-butyldimethylsilyloxy)vinyl)cyclohexene **6b** produces the desired cycloadduct **12** with good endo selectivity (4:1) and excellent diastereoselectivity.

Plaunol B and C, **1ab**, are diterpenes of the clerodane family<sup>2</sup> isolated from the stems of *Croton sublyratus* Kurz which were found to exhibit significant inhibitory activity against ulcers in Shay rats.<sup>3</sup> This activity appears to result from the ability of the plaunols to depress gastric secretions.<sup>4</sup> Several other structurally related diterpenes have also been isolated, including the insect antifeedants, the ajugarins.<sup>5</sup> Because of their interesting structures and biological activity, these molecules have engendered a lot of work aimed at their synthesis.<sup>6</sup> We proposed a synthetic approach







## References and Notes

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- 12) The stereochemistry of the phenyl substituent in the minor isomer **13** is assumed based on steric arguments but has not been confirmed.

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