APPROACHES TO THE SYNTHESIS OF ANTHRACYCLINONES

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ABSTRACT

The Claisen rearrangement of 1,4-bis(prop-2'-enyloxy)anthraquinone under reducing conditions is investigated. The elaboration of the product of double Claisen rearrangement towards an anthracyclinone skeleton is reported.

The insertion of methyl ketone and aldehyde functions into the C-2 and C-3 positions of the anthraquinone skeleton and the subsequent elaboration towards an anthracyclinone skeleton is investigated.

Methods for the conversion of hydroxymethylanthraquinones to side chains suitable for anthracyclinone syntheses are reported.

A total synthesis of 7,9-didesoxydaunomycinone from 1,4-dihydroxy-2-methylanthraquinone is described.