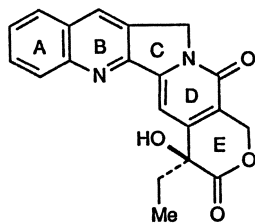


33.1 Introduction

Camptotheca acuminata Decne (Nyssaceae) is a tree native to and widely distributed in the southern part of China. The alkaloid component, camptothecin, with a new structural feature and an antileukemic activity, was isolated by Wall et al. in 1966 [1]. Since then, the chemical and biological properties of camptothecin and related alkaloids isolated from *C. acuminata* or synthesized have been investigated in great detail [2–5].

33.2 Chemical Constituents

As mentioned above, *C. acuminata* contains a number of alkaloids as main constituents. The alkaloid first isolated was camptothecin (33-1) [1]. The chemical structure of camptothecin was ascertained by its spectral and chemical properties and by X-ray crystallographic analysis of the 20-iodoacetate derivative [1, 6]. It has an indolizinoquinoline skeleton with a six-membered lactone ring.



Camptothecin (33-1)

Camptothecin was first isolated from the stem wood and bark of *C. acuminata*. The yield of camptothecin from the bark was 0.005%–0.012%, depending on the extraction method [7]. From the wood and bark other camptothecin-related alkaloids were detected: 10-hydroxycamptothecin (33-2), 10-methoxycamptothecin (33-3) [8], 11-hydroxycamptothecin (33-4) [9], deoxycamptothecin (33-5), hexanoylcamptothecin (33-6), and hexanoyl-10-methoxycamptothecin (33-7) [7].