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STUDIES ON THE SYNTHESIS OF THE DIMERIC INDOLE ALKALOIDS

THE STEREOSPECIFIC SYNTHESIS OF (±)-DIHYDROCLEAVAMINE AND A NEW SYNTHESIS OF (±)-QUEBRACHAMINE AND ITS (±)-14, 15-DEHYDRODERIVATIVE

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Novel syntheses of the entitled compounds and their related compounds *via* sulfur containing intermediates have been reported.

Hydroboration followed by oxidation of an epimeric mixture of 2-(2-ethylallyl)-3-thioxo-1,2,3,5,6,11b-hexahydro-11H-pyrrolo[1,2-a]-β-carboline afforded the primary alcohol;2-(2-ethyl-3-hydroxypropyl)-3-thioxo-1,2,3,5,6,11b-hexahydro-11H-pyrrolo[1,2-a]-β-carboline as a single stereoisomer which was then led to (±)-dihydrocleavamine.

A new synthesis of (±)-quebrachamine was accomplished by two different ways, in which the one employed the thio-Claisen rearrangement to construct crucial intermediate, while the other used the α-diketomonothioketal cleavage reaction and in the latter a introduction of 14,15-double bond of quebrachamine was accomplished by the thermolysis of the corresponding sulfoxide.