

Skeleton Diversity by Cyclopropanation of Tricyclic Acylenamines

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Dedicated to Professor Gerhard Maas on the occasion of his 60th birthday

Aiming at the structural diversification of phakellin- and isophakellin-type pyrrole-imidazole alkaloids on the skeleton level, the reaction of dipyrrolopyrazinones and pyrroloindolizines with dichlorocarbene was investigated. Conversions resulted in ring expansion affording novel chlorinated and brominated dipyrroloazepinones, pyridopyrroloazepinones, and dipyrrolopyrazinones. Structures of the tetracyclic products with hitherto unknown architectures have been secured by X-ray analyses.

Key words: Alkaloids, Azepinones, Cyclopropanation, Dichlorocarbene, Ring Expansion