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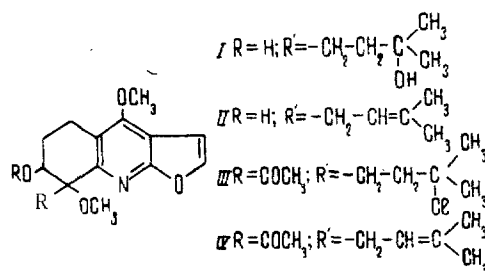
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STRUCTURE OF PERFORINE AND HAPLOPHYLLIDINE

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The isolation of two new alkaloids, perforine [1] and haplophyllidine [2], from the seeds of Haplophyllum perforatum has been reported previously. These bases are similar in structure and give a number of identical derivatives. The results of a study of the chemical transformations and of the UV, IR, mass, and NMR spectra of perforine (I), haplophyllidine (II), and their derivatives enables the following structures to be proposed for them:



The structural similarity of these alkaloids was shown by a passage from perforine to haplophyllidine by the following route: perforine (I) \rightarrow chloroacetylperforine (III) \rightarrow acetylhaplophyllidine (IV) \rightarrow haplophyllidine (II).

Perforine and haplophyllidine are the first representatives of the series comprising the furano-5,6,7,8-tetrahydroquinoline derivatives.

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