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Contemporary ideas about the conformations of eightmembered cyclic systems with planar fragments

Arshinova R., Ogarev V. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The results of conformational studies on eight-membered cyclic compounds that contain from one to four planar fragments in exo- or endo-cyclic positions of the molecule have been correlated. By analysing the systematic changes in the torsion angles and folding parameters, which were selected as the main quantitative criteria of the conformational state of the class of compounds being examined, it is possible to present a sufficiently complete and consistent picture of their conformational behaviour, which has a diversity that is determined by the relative configuration and nature of both the planar fragments and the heteroatoms contained in the ring. Special consideration has been given to the basis for the NMR spectroscopic criteria used in identification of the respective conformations. The bibliography includes 230 references. © 1988 IOP Publishing Ltd.

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