

Bulletin of the Academy of Sciences of the USSR Division of Chemical Science 1974 vol.23 N2,
pages 285-288

Investigation of the steric structure of certain compounds of the bicyclo-[4,2,0]octan-7-one series

Arbuzov B., Butenko G., Vereshchagin A., Shishkina N.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

1. The steric structure of adducts of dichloroketene and cyclohexene, dichloroketene and methyl-cyclohexene, dimethylketene and dihydropyran was investigated by the methods of dipole moments and molar Kerr constants. 2. For all the adducts, the preferential conformation of the bicyclo[4,2,0]octan-7-one system is the anti-boat conformation. 3. The adduct of dimethylketene and dihydropyran has the structure of 8,8-dimethyl-2-oxobicyclo-[4,2,0] octan-7-one. The formation of such a structure is apparently determined by the electron donor influence of the oxygen atom in dihydropyran on the process of cycloaddition. © 1974 Consultants Bureau.

<http://dx.doi.org/10.1007/BF00924670>
