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INVESTIGATION OF THE MOLECULAR STRUCTURE OF ARBIDOL IN SUPERCRITICAL CARBON DIOXIDE BY NMR SPECTROSCOPY

Khodov I.A.^{1,2}, <u>Belov K.B.</u>¹, Dyshin A.A.¹, Khafizova A.A.², Yulmetov A.R.², Kiselev M.G.¹

¹G.A. Krestov Institute of Solution Chemistry of Russian Academy of Sciences, Ivanovo, Russian Federation

² Institute of Physics, Kazan Federal University, Kazan, Russian Federation iakh@isc-ras.ru

Arbidol (also known as umifenovir) is a synthetic antiviral drug developed over 30 years ago to combat the seasonal influenza virus [1]. Since that time, arbidol was shown to inhibit viruses from more than a dozen families [2]. Therefore, the study of the structure of Arbidol is a necessary step for developing a strategy for improving this compound, both in terms of biological activity and from the point of view of physicochemical characteristics. This problem is particularly relevant in the light of studies of the effect of supercritical solvents on the polymorphism of nanocrystalline forms of biologically active compounds in a polymer matrix. In this paper the features of the structure and spectral characteristics of Arbidol in $scCO_2$ and chloroform obtained using modern NMR methods are discussed.

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