

lycopene for most people. Nowadays, the lycopene is included in a number of food supplements, such as: *Licopen* (Medicer Bio – lycopene 25 mg, flax flour 200 mg); *Lycopene* – 10 mg (Puritan's Pride); *Lycopene* -10 mg (Biovea).

Due to its antioxidant properties, lycopene is thought to play a role in preventing cancer and heart disease, lowers LDL levels, enhances the immunity, protects the enzymes. One of the most important benefits of the lycopene is the prevention and treatment of cancer – lung cancer, stomach cancer, bladder cancer, skin cancer and particularly prostate cancer.

Conclusions: The beneficial effects of lycopene determine us to initiate research to assess the lycopene content in different plant sources available on the market as well as some food and dietary supplements.

Keywords: lycopene, antioxidant, cancer

23. NMR SPECTRA INTERPRETATION

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Introduction: From all the methods, nuclear magnetic resonance (NMR) is one that offers the richest and the most complete structural information about organic compounds. This method can be applied to the elucidation of chemical structure as well as the determination of stereochemistry and conformation of their pure substance and mixture. The interpretation of the NMR spectrum becomes an increasingly empowered ability applied in the context of the rapid development of organic synthesis of new compounds, and in the increasing interest for the existing drug substances.

Purpose and Objectives: The highlighting of the main stages of NMR interpretation spectrum, the structure elucidation of organic compounds and determination of their stereochemistry and conformation.

Materials and methods: The study is performed by meta-analysis of published scientific data, standardization of analytical quality documents, articles from magazines and periodicals.

Results: As a result of the study was formulated an algorithm of the interpretation of NMR spectrum. We applied the rules established in the analysis of NMR spectrum, which gave us information about the structure of substances and their conformation. The data that were obtained correlate with the data from the scientific literature and confirm the applicability of the formulated algorithm.

Conclusion: The right interpretation of the NMR spectrum, allows the accurate identification of the structure of an unknown substance, with any molecular weight and any number of molecules, as well as isomers differentiation between them.

Keywords: NMR spectrum interpretation, functional group

24. STUDY OF PHYSICOCHEMICAL PROPERTIES OF A THIODIAZOL DERIVATES WITH ANTI-MYCOBACTERIAL ACIVITIES

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Introduction: Tuberculosis remains one of the most devastating infectious diseases affecting people in different social and age groups. The situation becomes even more complicated with the increasing number of drug-resistant tuberculosis cases, where conventional therapy is no longer effective, and better antimycobacterial drugs either do not exist or are too expensive.

The purpose of the study: Study of physicochemical properties of an anti-mycobacterial compound from the group of thiodiazol derivates.