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Investigation of dependence "structure – antineoplastic activity" in relation to the cells of the series hepg2, hela, Hvr100-6, DU-145 in the sequence of different classes of heterocyclic compounds

© Veronika R. Khairullina,¹⁺ Evgeniya V. Dubinina,¹⁺ Felix S. Zarudiy,³ Anatoliy Ya. Gerchikov,¹* Liliya Kh. Faizullina,² and Fanur Z. Galin¹

¹Department of physical chemistry and chemical ecology. Bashkyr state university.

Z. Validi St., 32. Ufa, 420074. Republic Bashkortostan. Russia.

Phone: +7 (347) 273-67-27. E-mail: Veronika1979@yandex.ru, gerchikov@inbox.ru

² Institute of organic chemistry. Ufa scientific center at RAS. Oktyabrya St., 71. Ufa, 450054. Republic

Bashkortostan. Russia. Phone: +7 (3472) 35-55-60. E-mail: chemorg@anrb.ru

³ Department of pharmacology №1. Bashkyr state medical university.

Lenin St., 3. Ufa, 450000. . Republic Bashkortostan. Russia.

Phone: +7 (347) 273-75-81. E-mail: zarudiy@anrb.ru

*Supervising author; ⁺Corresponding author

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Abstract

With the use of computer system SARD-21 (Structure Activity Relationship and Design) there have been revealed the structural signs, characteristics for high medium and low efficiency anticancer compounds, the degree of their influence on cancer cells of hepatomas, cervix uteri and prostate gland. On the basis of the obtained data, two forecasting models of interval levels of antineoplastic activity of sulphur - nitrogen silicon – and oxygen-containing heterocyclic compounds with the level of the authentic forecast of 80% on two methods of recognition are constructed. The revealed structural laws can be used for designing highly active antineoplastic compounds.