

MINISTRY OF PUBLIC HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY

TOPICAL ISSUES OF NEW DRUGS DEVELOPMENT

Abstracts of XXV International Scientific
And Practical Conference
Of Young Scientists And Student

April 18-20, 2018
Kharkiv

Kharkiv
NUPh
2018

The structure of synthesized compounds was confirmed by IR- and ^1H NMR- spectroscopy.

Conclusions. New 2-amino-4-aryl-8-methoxycarbonyl-5-oxo-3-cyano-5,6,7,8-tetrahydro-7-phenyl-4*H*-chromenes was obtained. These investigations will be a base for further researches.

FURTHER SYNTHESIS AND INVESTIGATION OF PHYSICAL-CHEMICAL PROPERTIES OF DERIVATIVES OF 5-PHENETHYL-4-R-4*H*-1,2,4-TRIAZOLE-3-THIOLES

Ignatova T. V., Frolova Yu. S.

Scientific supervisor: assoc. prof. Kaplaushenko A. G.

Zaporizhzhya State Medical University, Zaporizhzhya, Ukraine

yuliia_hulina@ukr.net

Introduction. One of the priority directions of modern pharmacy and medicine is the synthesis of new domestic biologically active compounds that will replace expensive foreign analogues in the pharmaceutical market. As it is known from the literature, the growth rate of publications in the field of medical chemistry of compounds containing two heterocycles is higher than for other representatives of azoles. This fact points to the interest in these compounds as potential objects of the modern pharmaceutical market, namely, compounds that contain both heterocycles.

Aim. The purpose of our research is search for new low-toxic and highly effective compounds among derivatives of 5-phenethyl-4-R-4*H*-1,2,4-triazole-3-thioles, as well as the establishment of physical-chemical parameters of synthesized compounds.

Materials and methods. As the starting material for the synthesis of 2-((5-phenethyl-4-R-4*H*-1,2,4-triazole-3-yl)thio)acetate (propane, benzoic) acids, 2-((5-phenethyl-4-R-4*H*-1,2,4-triazole-3-yl)thio)nitriles. Acids were obtained in two ways: acid and alkaline hydrolysis. Acid hydrolysis is carried out in the presence of chloride acid. Alkaline hydrolysis is carried out in the presence of sodium hydroxide. Herewith, it can be noted that acid hydrolysis is characterized by a higher yield of the target product and can be recommended for synthetics, as preparative one.

Results and discussion. Synthesized 2-((5-phenethyl-4-R-4*H*-1,2,4-triazole-3-yl)thio)acetate (propane, benzoic) acids are insoluble in water, soluble in solutions of alkaly and of alkaline metals carbonates, as well as in organic solvents. For analysis, the synthesized compounds are recrystallization from ethanol.

The elemental analysis completely confirmed the empirical formulas 2-((5-phenethyl-4-R-4*H*-1,2,4-triazole-3-yl)thio)acetate (propane, benzoic) acids. In the infrared spectra of the synthesized compounds, clear bands of oscillations of the symmetric and asymmetric groups COO^- in the range of 1408-1315 cm^{-1} and 1585-1527 cm^{-1} , respectively, were found.

Conclusions. In the course of the study two methods of synthesis of 2-((5-phenethyl-4-R-4*H*-1,2,4-triazole-3-yl)thio)acetate (propane, benzoic) acids were suggested, one of the methods was recommended as a preparative one. The structure of synthesized acids is confirmed by the complex use of elemental analysis and IR-spectrophotometry, and their individuality is confirmed by chromatography.

NEW QUINOLIN-4-ONE DERIVATIVES AS POTENTIAL ANTI-INFLAMMATORY AGENTS

Jalilov Oybek

Scientific supervisors: assoc. prof. Zubkov V. O., assoc. prof. Kiz O. V.

National University of Pharmacy, Kharkiv, Ukraine

medchem@nuph.edu.ua

Introduction. Inflammation is an adaptive response that is triggered by noxious stimuli and conditions, such as infection and tissue injury. In the last decades, considerable progress has been made in understanding the cellular and molecular events that are involved in the acute inflammatory response to infection and, to a lesser extent, to tissue injury. Thus, research and development of new anti-inflammatory drugs passes to new levels and is an actual problem of modern medical chemistry.

CONTENT

1. SYNTHESIS OF PHYSIOLOGICALLY ACTIVE SUBSTANCES

Arazov N., Alferova D. A.; Sc. s.: prof. Perekhoda L. O., assist. Suleiman M. M.	6
Aristova M. A.	7
Aslanyan S., Suleiman M. M.; Sc. s.: assist. Alferova D.A., assoc. prof. Kobzar N. P.	8
Bykov E. V., Ivanov D. V., Tsechoev A. T., Novikova V. V.; Sc. s.: prof. Igidov N. M.	8
Cherkezov A., Kobzar N. P.; Sc. s.: assist. Alferova D. A., assoc. prof. Yaremenko V. D.	9
Davydova V. V., Illarionova E. S., Maryasov M. A., Eremkin A. V., Sheverdov V. P.; Sc. s.: prof. Nasakin O. E.	11
Davydova V. V., Maryasov M. A., Illarionova E. S., Eremkin A. V., Sheverdov V. P.; Sc. s.: prof. Nasakin O. E.	12
Grygoriv G. V., Lega D. O., Kalenichenko A. S.; Sc. s.: acad., prof. Chernykh V. P., prof. Shemchuk L. A., prof. Maloshtan L. M.	12
Guryakova A. O.; Sc. s.: assoc. prof. Podolsky I. M.	13
Hamroev Bayram; Sc. s.: prof. Perekhoda L. O., assist. Suleiman M.M.	14
Holovach Y. O., Levashov D. V.; Sc. s.: prof. Shemchuk L. A.	15
Ignatova T. V., Frolova Yu. S.; Sc. s.: assoc. prof. Kaplaushenko A. G.	16
Jalilov Oybek; Sc. s.: assoc. prof. Zubkov V. O., assoc. prof. Kiz O. V.	16
Kizimova I. A., Demidova M. A., Degtyareva A. S., Drobyshev A. A.; Sc. s.: prof. Igidov N. M., cand. of biology Chaschina S.V.	17
Kolodiazhnina T. I., Lega D. O.; Sc. s.: prof. Shemchuk L. A.	18
Lipin K. V.	19
Lyashenko S. V., Grygoriv G. V., Lega D. O.; Sc. s.: prof. Shemchuk L. A.	20
Piven K. A., Chornyi A. S.; Sc. s.: assoc. prof. Tsapko Ye. O.	21
Rebrik A. O., Shapovalova O. V., Alferova D. O.; Sc. s.: prof. Strelnikov L. S., assoc. prof. Altukhov O. O.	22
Rud A. M., Frolova Yu. S.; Sc. s.: assoc. prof. Kaplaushenko A. G.	23
Sadova M. V.; Sc. s.: assoc. prof. Skrebtssova K. S.	24
Serdarova Maisa; Sc. s.: assist. Alferova D. A., assoc. prof. Kobzar N.P.	24
Starinova M. V.; Sc. s.: assoc. prof. Sytnik K. M., prof. Kolisnyk S. V.	25
Syutkina A. I., Mahmudov R. R.; Sc. s.: prof. Igidov N. M.	26
Tkachenko P. V., Netosova K. Yu.; Sc. s.: prof. Zhuravel I. O.	27
Yuldashev Sanjarbek; Sc. s.: prof. Perekhoda L. O., assist. Suleiman M.M.	27

2. STUDY OF MEDICINAL PLANTS AND CREATION OF HERBAL MEDICINAL PRODUCTS

Anes A. T.; Sc. s.: prof. Patsaev A. K.	30
Barashovets O. V.; Sc. s.: prof. Popova N. V.	30
Bikhovets M. M.; Sc. s.: assoc. prof. Slipchenko G. D.	31
Bogachik Ju. R., Akhmedova L. E.; Sc. s.: assoc. prof. Akhmedov E. Yu., assist. Samoilova V. A.	32
Budnyk M. O., Ochkur O. V., Kayrod V. M., Goncharov O. V. Sc. s.: prof. Kovalyova A. M	33
Cherkezova S. ; Sc. s.: prof. Ilina T. V.	34
Degtyarova A. Y.; Sc. s.: assoc. prof. Skrebtssova K. S.	34
Duyun I. F.; Sc. s.: prof. Mazulin O. V.	35
Fotesko K. O.; Sc. s.: assist. Mashtaler V. V.	36
Gulyrov D.; Sc. s.: prof. Ilina T. V.	37
Halai A. A.; Sc. s.: assoc. prof. Skrebtssova K. S.	38
Hordieva K. R.; Sc. s.: prof. Gontova T. M.	38
Hrytsai A. V.; Sc. s.: assoc. prof. Demeshko O. V.	39