

THE 500TH ISSUE OF THE JOURNAL

"CHEMISTRY OF HETEROCYCLIC COMPOUNDS"

The 400th issue of the journal "Chemistry of Heterocyclic Compounds" was published at the beginning of the 21st century. A little more than eight years have passed, and we are presented with the 500th issue of the journal, already in its 45th year.

A hundred issues of the journal have been added, and this means 108 reviews, 1,453 scientific papers, and 450 letters to the editor. The size of each issue has increased by 11% despite the reduction of almost 30% in the editorial staff.

The circle of authors and readers of the journal has expanded significantly since the appearance of the electronic version of "Chemistry of Heterocyclic Compounds" (Springer) in 2001. Papers by the chemists working in 51 countries have been published in the last 100 issues of the journal (Table 1).

The largest number of papers have come from the universities and research institutes of Russia (1,075 papers from 42 cities), Ukraine (434 papers from 16 cities), Latvia (177), Lithuania (68), and Armenia (66).

Among the cities (Table 2) the scientific institutions of Moscow (419), Kiev (231), Riga (177), Perm (112), Kharkov (104), Irkutsk (82), St. Petersburg (76), Stavropol (67), Rostov-on-Don (59), and Lugansk (50) are in the first ten.

It should be noted that there has been a significant increase in the number of papers received in recent years from Ukraine and also an expansion in the geographical origin of the papers received (Austria, Egypt, India, Iran, Italy, Netherlands, New Zealand, Norway, Pakistan). An ever-increasing number of papers are being published in English. The journal has become truly international.

However, not only the number of papers but also the quality of investigating the structure of the published compounds has been raised significantly. Whereas in the recent past ^1H NMR data mostly obtained at 200 MHz (and often at 90 and 100 MHz) were used as evidence for structure, now more than 60% of all the spectra were obtained on instruments working at 300 and 400 MHz. Comparison of the papers of only the last two years indicates an increase in the number of papers in which ^1H NMR at 300 (from 26.6 to 33.5%) and 400 MHz (from 27 to 30%) was used to prove the structure and a decrease in the number of papers at 200 MHz (from 21 to 18.6%), while the data obtained on instruments working below 200 MHz were published in only 3% of the papers.

The number of papers in which ^1H NMR at 500 and 600 MHz was used is gradually increasing (10.5%). The first paper on ^1H NMR at 900 MHz was published in *Chemistry of Heterocyclic Compounds*. Two-dimensional and multinuclear NMR are being used more and more frequently to determine the structure of synthesized compounds. Investigations have been conducted not only with ^1H and ^{13}C nuclei but also with ^{11}B , ^{14}N , ^{15}N , ^{17}O , ^{19}F , ^{29}Si , ^{31}P , ^{73}Ge , ^{77}Se , ^{119}Sn , and ^{125}Te nuclei.

The data on X-ray structure analysis are presented in 20% of the papers, and the number of such papers continues to grow. The number of papers in which the useful characteristics of the obtained heterocyclic compounds (biological activity, photochromic characteristics, dyes, ion extractants) are described has also increased. The editors encourage publications on quantum-chemical calculations and the electrochemical and microwave synthesis of new heterocycles and welcome the appearance of original papers on enzymatic synthesis and transformations of heterocyclic compounds.

TABLE 1. The Countries of the Chemists which Published Papers in "Chemistry of Heterocyclic Compounds", Nos. 401 (No. 11, 2000)-500 (No. 2, 2009)

Nation	Number of papers	Nation	Number of papers	Nation	Number of papers
Russia	1075	Great Britain	6	Israel	2
Ukraine	434	Iran	6	Jordan	2
Latvia	177	Italy	6	Côte d'Ivoire	2
Lithuania	68	Japan	5	New Zealand	2
Armenia	66	Moldova	4	Serbia	2
Belarus	33	Pakistan	4	Tajikistan	2
Poland	33	Palestine	4	Turkey	2
Uzbekistan	32	Azerbaijan	3	Belgium	1
Georgia	29	Bulgaria	3	Greece	1
Germany	25	Iraq	3	Kuwait	1
India	23	Spain	3	Morocco	1
USA	18	Canada	3	Norway	1
Egypt	14	Romania	3	Slovenia	1
Netherlands	12	Slovakia	3	Taiwan	1
Kazakhstan	11	Finland	3	Tunisia	1
France	11	Czech Republic	3		
China	8	Sweden	3		
Austria	7	Australia	2		

TABLE 2. Cities of Russia and Ukraine whose Chemists Published Papers in "Chemistry of Heterocyclic Compounds", Nos. 401 (No. 11, 2000)-500 (No. 2, 2009)

Russian city	Number of papers	Russian city	Number of papers	Ukrainian city	Number of papers
Moscow	419	Biysk	8	Kiev	231
Perm	112	Vladikavkaz	7	Kharkov	104
Irkutsk	82	Chelyabinsk	6	Lugansk	50
St. Petersburg	76	Ivanovo	4	Donetsk	24
Stavropol	61	Makhachkala	4	Odessa	24
Rostov-on-Don	59	Cheboksary	4	Lvov	15
Krasnodar	46	Astrakhan	2	Dnepropetrovsk	11
Chernogolovka	41	Yoshkar-Ola	2	Chemigov	11
Yekaterinburg	39	Novomoskovsk	2	Zaporozhe	6
Saratov	33	Petrozavodsk	2	Uzhgorod	6
Kazan	26	Tula	2	Chernovtsy	6
Novosibirsk	21	Barnaul	1	Kherson	5
Samara	20	Gorno-Altai	1	Makeevka	3
Ufa	20	Dzerzhinsk	1	Sumy	2
Voronezh	15	Krasnoyarsk	1	Zhitomir	1
Nizhny Novgorod	15	Obninsk	1	Lutsk	1
Vladivostok	13	Pyatigorsk	1		
Saransk	13	Tomsk	1		
Novocherkassk	10	Khabarovsk	1		
Volgograd	9	Yakutsk	1		
Omsk	9				
Yaroslavl	9				

A unique feature of "Chemistry of Heterocyclic Compounds" is the regular publication of reviews on the chemistry of heterocyclic compounds in each issue.

Special issues of the journal were dedicated to the anniversaries of some scientists (L. I. Belen'kii – 70, 75, M. G. Voronkov – 80, 85, S. Gronovits – 75, E. Lukevics – 65, 70, A. F. Pozharskii – 70, J. Stradins – 70, B. A. Trofimov – 70) and to events in the scientific life of heterocyclic chemists.

Issues of "Chemistry of Heterocyclic Compounds" linked to the established "Balticum Organicum Syntheticum" conferences (Vilnius 2000, 2002, 2008; Riga 2004; Tallinn 2006) were dedicated to investigations by scientists of the Baltic nations.

Separate reviews summarized the results from investigations of heterocyclic compounds by the following scientific teams:

The A. E. Favorsky Irkutsk Institute of Chemistry, Siberian Branch of the Russian Academy of Sciences (in connection with the Institute's fiftieth anniversary); the Department of Organic Chemistry, Chemical Faculty of M. V. Lomonosov Moscow State University (the 250th anniversary of the University and the 75th anniversary of its Chemical faculty); the G. F. Gauze Institute of New Antibiotics, Russian Academy of Medical Science (the production of heterocyclic antibiotics; the Institute's 50th anniversary).

Special articles were dedicated to the anniversaries of:

Research institutions (N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences – 70 years; the A. N. Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences – 50 years; the Latvian Institute of Organic Synthesis – 50 years);

The departments of higher education establishments (the Department of Chemistry and Technology of Organic Compounds of Nitrogen, St. Petersburg State Technological Institute – 75 years; the Department of Organic and Bioorganic Chemistry, Saratov State University – 80 years);

Individual chemists, including a bibliography of papers of the last 5-10 years: A. A. Akhrem, A. V. Bogatsky, R. Valters, I. I. Grandberg, G. Duburs, N. S. Zefirov, I. Kalvinsh, A. Katritzky, N. K. Kochetkov, V. G. Kul'nevich, M. J. Lidaks, M. O. Lozinskii, Yu. A. Moskvichev, O. Neilands, A. F. Pozharskii, A. A. Potekhin, M. N. Preobrazhenskaya, N. S. Prostakov, A. Skorova, L. I. Smirnov, J. Stradins, A. Strakovs, V. P. Khilya, G. Chipens, O. N. Chupakhin, and M. A. Yurovskaya.

Memorial issues were dedicated to the memory of Ya. L. Gol'dfarb (100), A. N. Kost (90), and A. A. Potekhin (70).

Memorial papers were published: 2002 – N. D. Kryuchkovskaya; 2003 – Yu. A. Bankovsky, M. Lidaks, O. Neilands, O. A. Pudova; 2004 – E. Gudriniece, E. N. Gur'yanova, K. N. Zelenin, V. A. Pestunovich; 2005 – N. K. Kochetkov, V. G. Kharchenko; 2007 – V. P. Litvinov, A. A. Potekhin, N. S. Prostakov, V. V. Shchepin; 2008 – E. Stankevich, F. S. Babichev (85), S. A. Hiller (90), K. N. Zelenin (70), A. V. Kirsanov (100), V. S. Shklyayev (90).

The journal "Chemistry of Heterocyclic Compounds" continues to publish scientific papers, reviews, letters to the editor, annotations, and reviews of books, news items about the work of scientific conferences, and information on the defense of theses.

In 2001 the journal was awarded a gold medal "For Contribution to Science and Scientific Partnership," established by the "Scientific Partnership" foundation, and in 2006 the "Prof. A. N. Kost Memorial" medal established by the "Scientific Partnership" foundation, M. V. Lomonosov Moscow State University, and the D. I. Mendeleev Russian Chemical Society.

The Editorial Board thanks all authors, regional editors, all editors and reviewers, and the publishers for their contributions to the creation of the journal and hope for continued fruitful collaboration.

Prof. E. Lukevics,
Editor-in-Chief of the journal "Chemistry of Heterocyclic Compounds"