



PROFESSOR GUNARS DUBURS
(on his 75th jubilee)

12th June is the 75th jubilee of Academician of the Latvian Academy of Sciences, habilitated Doctor of Chemical Sciences, Professor Gunars Duburs.

Gunars Duburs is a notable Latvian scientist who works in the field of the organic synthesis of heterocyclic compounds. He is the author and co-author of 510 scientific papers and 430 abstracts, he has been granted 68 patents and 105 USSR authors certificates.

G. Duburs has taken part in many international conferences, symposia, and conventions, and his lectures have resulted in lively and profound interest among scientists from many countries.

G. Duburs has made a great contribution to the development of scientific personnel. He has trained 18 doctors of science and gives courses of lectures in biochemistry and bioorganic chemistry.

At present G. Duburs is the head of the Laboratory of membrane-active compounds and β -diketones, including 40 co-workers (10 doctors of chemical science, 3 doctors of biological and medicinal sciences, 11 masters (7 of them doctorants), magistrants and students).

In recent times G. Duburs was awarded the gold medal of the World Intellectual Property Organization (WIPO) (2006) and also the honorary badge of the "Golden Owl" of the Fund for the Maintenance of Science and Formation of the Latvian Academy of Science and "Grindeks" (2008). For his prolonged and productive scientific and public activity G. Duburs was distinguished with the highest award of the Latvian Republic – the Order of the Three Stars, IVth degree (2009).

The following may be consulted for the biography, scientific interests, and the results of the scientific studies of Gunars Duburs:

Khim. Geterotsikl. Soedin., 963 (2004); *Chem. Heterocycl. Comp.*, **40**, 823 (2004).

Latvijas Zinātņu akadēmijas akadēmiķis Gunārs Duburs. Biobibliogrāfija, Rīga, Latvijas akadēmiskā bibliotēka, 1994, 220 pp (in Latvian, Russian, and English).

Translated from *Khimiya Geterotsiklicheskikh Soedinenii*, No. 5, 785-789, May, 2009.

The colleagues of Gunars Duburs sincerely congratulate him and wish him a happy birthday with good health, many years of creative and happy life, new ideas and achievements.

Principal publications of G. Duburs in the field of heterocyclic chemistry (2004-2009)

1. J. Briede, M. Stiviriņa, D. Stoldere, E. Bisenieks, J. Ulkdriķis, J. Poikāns, N. Makarova, and G. Duburs, Effect of new and known 1,4-dihydropyridine derivatives on blood glucose levels in normal and streptozotocin-induced diabetic rats, *Cell. Biochem. Funct.*, **22**, 219-224 (2004).
2. M. A. S. Fernandes, M. S. Santos, J. M. Moreno, G. Duburs, C. R. Oliveira, and A. F. Vicente. Glibenclamide interferes with mitochondrial bioenergetics by inducing changes in ion permeability, *J. Biochem. Mol. Toxicol.*, **18**, 162-169 (2004).
3. B. Jansone, R. Muceniece, V. Kluša, Š. Svirskis, R. Petrovska, G. Duburs, and J. E. S. Wikberg, The non-peptide compound cerebrocrast is a highly effective melanocortin MC4 receptor agonist and inhibits feeding, *Proc. Latv. Acad. Sci., Sect. B*, **58**, 103-108 (2004).
4. A. Sobolev, M. C. R. Franssen, G. Duburs, and Ae. De Groot, Chemoenzymatic synthesis of enantiopure 1,4-dihydropurine derivatives, *Biocatal. Biotransform.*, **22**, 231-252 (2004).
5. E. V. Ivanov, T. V. Ponomareva, G. N. Merkushev, I. K. Romanovich, G. Ya. Dubur, E. A. Bisenieks, Ya. R. Uddriķis, and Ya. Ya. Poikāns, Radiomodification properties of derivatives of 1,4-dihydropyridine and 1,2,3,4,5,6,7,8,9,10-decahydroacridin-1,8-dione, *Radiatsionnaya Biologiya. Radioekologiya*, **44**, 550-559 (2004).
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7. Z. Kalme, R. Zhalubovskis, A. Shmidlers, J. Celmins, and G. Duburs, Synthesis of 6-bromomethyl-substituted derivatives of pyridine-2(1H)-ones and their reactions with nucleophiles, *Khim. Geterotsikl. Soedin.*, 1006-1013 (2004). [*Chem. Heterocycl. Comp.*, **40**, 862-868 (2004)].
8. E. Bisenieks, J. Udriķis, and G. Duburs, Reaction of 3,5-dicarbonyl-substituted 1,4-dihydropyridines with hydrazine hydrate, *Khim. Geterotsikl. Soedin.*, 1014-1021 (2004). [*Chem. Heterocycl. Comp.*, **40**, 869-875 (2004)].
9. A. Krauze, L. Baumanė, L. Sīle, L. Černova, M. Viļums, R. Vītoliņa, G. Duburs, and J. Stradins, Synthesis, cardiovascular activity, and electrochemical oxidation of 5-ethoxycarbonyl-2-methylthio-1,4-dihydro-3-carbonitriles, *Khim. Geterotsikl. Soedin.*, 1022-1035 (2004). [*Chem. Heterocycl. Comp.*, **40**, 876-887 (2004)].
10. A. Sobolev, R. Zhalubovskis, M. C. R. Franssen, B. Vigante, B. Chekavichus, G. Duburs, and Ae. de Groot, *Candida rugosa* lipase-catalysed kinetic resolution of 3-(isobutyryloxy)methyl-4-[2-(difluoromethoxy)phenyl]-2-methyl-5,5-dioxo-1,4-dihydrobenzothieno[3,2-b]pyridine-3-carboxylate, *Khim. Geterotsikl. Soedin.*, 1081-1088 (2004). [*Chem. Heterocycl. Comp.*, **40**, 931-937 (2004)].
11. E. Bisenieks, J. Uldriķis, and G. Duburs, 3,5-Dicyano-1,4-dihydropyridines as a source for the preparation of pyrazole and pyrazole[3,4-*b*]pyridine derivatives, *Heterocycl. Commun.*, **11**, 9-12 (2005).
12. M. A. S. Fernandes, A. S. Jurado, R. A. Videira, M. S. Santos, A. J. M. Moreno, A. Velena, G. Duburs, C. R. Oliveira, and J. A. F. Vicentem, Cerebrocrast promotes the co-transport of H⁺ and Cl⁻ in rat liver mitochondria, *Mitochondrion*, **5**, 341-351 (2005).
13. L. Klimavičiūsa, V. Kluša, G. Duburs, A. Kaasik, A. Kalda, and A. Zharkovsky, Neuroprotective (oxygen-glucose deprivation model) and neurotrophic effects of novel 1,4-dihydropyridine derivatives in cerebellar granule cells, *Proc. Latv. Acad. Sci., Sect. B*, **59**, 169-174 (2005).

14. A. Krauze, I. Šturms, J. Popelis, L. Sīle, V. Kluša, and G. Duburs, Synthesis and properties of methyl 4,6-diaryl-2(3H)-thioxo-1,4-dihydropyridine-3-carboxylates, *Heterocycl. Commun.*, **11**, 37-42 (2005).
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18. A. Krauze, L. Sīle, R. Danne, and G. Duburs, Synthesis and properties of 7-acetyl-8-aryl-9-cyano-3-hydroxy-6-methyl-3,4-dihydro-2H,8H-pyrido[2,1-*b*][1,3]thiazines, *Khim. Geterotsikl. Soedin.*, 1394-1399 (2005). [*Chem. Heterocycl. Comp.*, **41**, 1189-1194 (2005)].
19. V. Klusa, L. Klimaviciusa, G. Duburs, J. Poikans, and A. Zharkovsky, Anti-neurotoxic effects of tauropyrone, a taurine analogue, in: S. S. Oja and P. Saransaari (editors), *Taurine 6. Advances in experimental medicine and biology*, Vol. 583, Springer, New York, 2006, pp. 499-508.
20. A. Krauze, L. Chernova, M. Viļums, L. Sīle, and G. Duburs, Green one-pot multicomponent synthesis of methyl 4-aryl-6-carbamoylmethylthio-5-cyano-2-methyl-1,4-dihydropyridine-3-carboxylates, *Heterocycl. Commun.*, **12**, 281-286 (2006).
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31. Z. Kalme, A. Šmidlers, J. Celmiņš, E. Liepinsh, A. Krauze, and G. Duburs, Unexpected bromination reaction of 3,4-dihydropyridin-2(H)-ones with N-bromosuccinimide, *Khim. Geterotsikl. Soedin.*, 786-788 (2007). [*Chem. Heterocycl. Comp.*, **43**, 662-664 (2007)].
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