CURRICULUM VITAE

Surname, firstname, patronymic

Dr. Toropov Andrey A. (Toropov Andrey Andreevich)

Brief service record

1986 - 1987 – engineer in Institute of chemistry Acad. Sci. UzSSR.
1987 - 1991–junior researcher of polymer chemistry and physics Acad. Sci. Rep. Uzbekistan
1991-1993 - Tashkent secondary school 225, teacher of computer sciences, Uzbekistan
1994-2002 research worker of institute of polymer chemistry and physics Acad. Sci. Rep. Uzbekistan
2002 – 2004 senior scientific researcher at 'Algorithm – Engineering' institute of Acad. Sci. Rep. Uzbekistan
2004 - 2005 senior scientific researcher at 'Institute of Geology & geophysics of Acad. Sci. Rep. Uzbekistan
2005 – joint QSAR study in Istituto di Ricerche Farmacologiche Mario Negri, Milano, Italy
2006 – 2007 joint QSPR/QSAR analysis for nanomaterials in Computational Center for Molecular Structure and Interactions, Jackson State University, Jackson, MS, USA
2007-2009 Marie Curie fellowships at Istituto di Ricerche Farmacologiche Mario Negri *IRCCS*, Milano, Italy
2009-up to present invited scientist in Istituto di Ricerche Farmacologiche Mario Negri *IRCCS*, Milano, Italy

Scientific interest

Quantitative Structure –Property/Activity Relationships (QSPR/QSAR); analysis of nano materials

Scientific degree

Ph.D. in mathematics and physics (1998)

Membership in Editorial Board of scientific journals

2018, ***Guest Editor*** of an issue of *International Journal of Quantitative Structure-Property Relationships*; Special issue: "Applications of QSPR/QSAR in Toxicology, Ecology, and Drug Discovery: Problems and Solutions"; Volume 3, Issue 2.
2017, ***Guest Editor*** of an issue of *Current Drug Metabolism* (impact factor =3.731); Special issue: "Impact of Drug Metabolism and its Relevance upon Drug Discovery"; Vol. 18, No. 12
2015, ***Guest Editor*** of an issue of *Current Topics in Medicinal Chemistry (CTMC)* (IF =3.295); Special issue: "From Chemoinformatics to Nanoinformatics: New tools for Drug Discovery and Nanoparticles Design in Medicinal Chemistry"; Vol. 15, No. 18
2015, ***Member of Scientific Committee*** of "*Mol2Net, International Conference on Multidisciplinary Sciences- 2015*", 1, pages 1-4, doi: 10.13140/RG.2.1.3123.3122 ; http://sciforum.net/conference/mol2net-1
2004, ***Guest editor*** on Special issue "Recent Advances in Flexible Molecular Descriptors In QSAR/QSPR Theory" (*European Journal Molecules*)

Member of the Advisory Editorial Board of the Journal of Argentine Chemical Society http://www.scielo.org.ar/revistas/jacs/eedboard.htm

Member of the Advisory Editorial Board of the section "Molecular Design and Informatics" in the journal "Combinatorial Chemistry & High Throughput Screening"
https://benthamscience.com/journals/combinatorial-chemistry-and-high-throughput-screening/editorial-board/

Member of the Advisory Editorial Board of the journal "Current Drug Discovery Technologies" https://benthamscience.com/journals/current-drug-discovery-technologies/editorial-board/

Member of the Editorial Board member of the journal "Toxics"
https://www.mdpi.com/journal/toxics/editors

Member of the Editorial Board member of the journal "Mini-Reviews in Medicinal Chemistry" (MRMC) https://benthamscience.com/journals/mini-reviews-in-medicinal-chemistry/editorial-board/

Member of the Editorial Review Board of the Journal of Nanotoxicology and Nanomedicine (JNN) http://www.igi-global.com/journal/journal-nanotoxicology-nanomedicine-jnn/126553

Member of the Editorial Review Board of the International Journal of Quantitative Structure-Property Relationships (IJQSPR) http://www.igi-global.com/journal/international-journal-quantitative-structure-property/126552

Referee in
ARKIVOC (USA), http://www.arkat-usa.org
Chemosphere
Computers in Biology and Medicine
Bioorganic and Medicinal Chemistry
Bioorganic and Medicinal Chemistry Letters
Acta Chemica Slovenia
Central European Journal of Chemistry
Chemometrics and Intelligent Laboratory Systems
European polymer
International Journal of Molecular Sciences
Environmatal Analytical Chemistry
Chemical Biology and Drug Design
Journal of Molecular Graphics and Modeling
Journal of Physical Chemistry (ACS)
Analytica Chemica Acta
Electrochimica Acta
Journal of Computational Chemistry
Molecular Diversity
Chemical Research in Toxicology
Water Sciences and Technology
Molecules

Abroad trips

2002. Lion, France
2004. Milan, Italy
2005-2006. Milan, Italy
2006 Prague, Check Republic
2006-2007 Jackson, MS, USA
2007- up to present Milan, Italy

Address
20156, Via Mario Negri, 2, Milan, Italy

Email
andrey.toropov@marionegri.it
aatoropov@yahoo.com

Participation in conferences and workshops

April 11, 2023-MRS Spring Meeting & Exhibit in San Francisco.
https://www.mrs.org/meetings-events/spring-meetings-exhibits/2023-mrs-spring-meeting/call-for-papers/presentations/detail/2023_mrs_spring_meeting/3838685-202304110845
September 21 – 23, 2022, 28th Annual Meeting of the Slovenian Chemical Society, Portorose, Slovenia.
November 11-12, 2021, Nanosafety workshop - From Molecules to Public Health. Portugal, Braga.
26-30 May 2019, The SETAC Europe 29th Annual Meeting, Helsinki, Finland.
June 24, 2016, XLI ELBA Nanoforum on Emerging Lines of Collaborative Russians/Italians Research, Pradalunga (Bergamo), Italy.
5–15 December 2015. MOL2NET, International Conference on Multidisciplinary Sciences, C: Polymers, Materials, and Nanosciences. http://sciforum.net/conference/MOL2NET-1/MOL2NET-c
November 4-6, 2015, CompNanoTox-2015, Malaga, Spain
7 - 11 July 2015: 12th International Conference on Nanosciences (NN15). Thessaloniki, Greece
April 29, 2015, CALEIDOS (Final Workshop- 2015), Milan , Italy
June 16-20, 2014, QSAR 2014, Milan, Italy

February 26, 2014, XXXIV ELBA NANOFORUM. Nanomedicine Workshop, Laboratories of Biophysics and Nanobiotechnology DIMES Genova University, Italy.
June 4-6, 2013, Harmonisation meeting with representatives of other projects in the NMP.2012.1.3-2 Programme "Modelling toxicity behaviour of engineered nanoparticles": ModEnpTox, Modern, NanoPuzzles, PreNanoTox in Brussels, Belgium
17-22 march, 2013,Fourth nanosafety annual school understanding human health effects and environmental impacts of engineered nanomaterials, Venice, Italy.
May, 2011, SETAC, Milan, Italy
March, 2011, Orchestra, Milan, Italy
September, 2009, VII World Congress on Alternatives & Animal Use in the Life Sciences, Rome, Italy
May, 2009, SETAC, Goteborg, Sweden
March, 2008, SCARLET–Istituto di Ricerche Farmacologiche Mario Negri, Milan, Italy
October, 2007, 15-th Conference on Current Trends in Computational Chemistry – Jackson State University, Jackson, USA, MI,

Participation in International scientific grants

CHEMPREDICT(n. MIF1-CT-2006-039036)
CAESAR (EC Project no. 022674 - SSPI)
OSIRIS(n. 037017 -GOCE)
ANTARES (Grant Agreement LIFE08 ENV/IT/00435)
PROSIL (projectLIFE12ENV/IT/000154)
Federchimica-AISPEC
NanoBRIDGE (Grant Agreement : PIRSES-GA-2011-295128)
NanoPUZZLES(EC Project Reference:309837)
PreNanoTox (EC Project Reference: 309666)
CALEIDOS (Grant Agreement LIFE 11 ENV/IT/000295)
EC project PeptiCAPS (Project Reference: H2020-686141)
LIFE-COMBASE (LIFE15 ENV/ES/000416)
EC project EU-ToxRisk- H2020-681002
EFSA contract (NP//EFSA/AFSCO/2016/1)
LIFE-VERMEER contract (LIFE16 ENV/IT/000167)
LIFE-CONCERT contract (LIFE17 GIE/IT/000461)

Development of the **CORAL Freeware** (**COR**relations **A**nd **L**ogic), http://www.insilico.eu/coral, CHEMPREDICT (039036).

Characterization of Dr. Toropov A.A. by Google Scholar Citations
https://scholar.google.co.uk/citations?user=TfckQOIAAAAJ&hl=en

Citation indices	**All**	**Since 2019**
Citations	9919	4536
h-index	49	31
i10-index	266	146

Characterization of Dr. Toropov A.A. by SCOPUS database
http://www.scopus.com/authid/detail.url?authorId=7102208151
h-Index=43 (i.e. there are 43 articles which are cited 43 or more times)

Year	**The number of published articles and chapters**	**The total number of citations up to now**
2024	1+3 (in press)	201
2023	34	873
2022	20	632
2021	20	713
2020	27	822

The total number of citations (SCOPUS) is 8140 (April 16, 2024)

PUBLICATION LIST OF ANDREY A. TOROPOV

Chapters in Books and other publications:

- **In Book**: *Toropova, A.P., Toropov, A.A. (eds)*. QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol. 33, pp.1-467. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4

- Toropov, A.A., Raskova, M., Raska, I., Toropova, A.P.
  Chapter 1. Fundamentals of Mathematical Modeling of Chemicals Through QSPR/QSAR. **In:** *Toropova, A.P., Toropov, A.A.* (*eds*) QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol. 33, Pages 3–24. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_1

- Toropov, A.A., Toropova, A.P.
  Chapter 3. Application of SMILES to Cheminformatics and Generation of Optimum SMILES Descriptors Using CORAL Software. **In:** *Toropova, A.P., Toropov, A.A. (eds)* QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol 33, Pages 57-82. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_3

- Nesměrák, K., Toropov, A.A.
  Chapter 6. QSPR Models for Prediction of Redox Potentials Using Optimal Descriptors. **In:** *Toropova, A.P., Toropov, A.A. (eds)* QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol 33, Pages 139-166. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_6

- Behera, S.A., Toropova, A.P., Toropov, A.A., Achary, P.G.R.
  Chapter 9. Quasi-SMILES-Based Mathematical Model for the Prediction of Percolation Threshold for Conductive Polymer Composites. **In:** *Toropova, A.P., Toropov, A.A. (eds)* QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol 33, Pages 211-239. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_9

- Achary, P., Krishna, P., Toropova, A.P., Toropov, A.A.
  Chapter 10. On the Possibility to Build up the QSAR Model of Different Kinds of Inhibitory Activity for a Large List of Human Intestinal Transporter Using Quasi-SMILES. **In:** *Toropova, A.P., Toropov, A.A. (eds)* QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol 33, Pages 241-268. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_10

- Toropova, A.P., Toropov, A.A.
  Chapter 14. The CORAL Software as a Tool to Develop Models for Nanomaterials' Endpoints. **In:** *Toropova, A.P., Toropov, A.A. (eds)* QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry and Physics, **2023**, vol 33, Pages 351-371. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_14

- Toropov, A.A., Toropova, A.P., Leszczynska, D., Leszczynski, J.
  Chapter 16. On Complementary Approaches of Assessing the Predictive Potential of QSPR/QSAR Models. **In:** *Toropova, A.P., Toropov, A.A. (eds)* QSPR/QSAR Analysis Using SMILES and Quasi-SMILES. Challenges and Advances in Computational Chemistry

and Physics, **2023**, vol 33, Pages 397-420. Springer, Cham. https://doi.org/10.1007/978-3-031-28401-4_16

- Nilima R. Das, Tripti Sharma, Ayeshkant Mallick, Alla P. Toropova, Andrey A. Toropov, and P. Ganga Raju Achary,
  Chapter 32. Computational Approach in Designing and Development of Novel Inhibitors of AKR1C1. **In Book**: Tripti Swarnkar, Srikanta Patnaik, Indian Institute of Technology (IIT), *Sanjay Misra, Siksha O. (Eds)*, Ambient Intelligence in Health Care: Proceedings of ICAIHC 2022: 325-339. (Smart Innovation, Systems and Technologies, vol. 317). Springer; 1st ed. **2023** edition. https://doi.org/10.1007/978-981-19-6068-0

- Alla P. Toropova and Andrey A. Toropov,
  Chapter 3. Use of the Monte Carlo Method to Build up QSPR/QSAR Models: Index of Ideality of Correlation and Correlation Intensity Index. **In Book**: *Thomas B. Hall (Ed.)*, Monte Carlo Methods: History and Applications. Series: Mathematics Research Developments. Nova, **2020**, pp.111-156. ISBN: 978-1-53617-723-7 https://novapublishers.com/shop/monte-carlo-methods-history-and-applications/

- Andrey A. Toropov, Alla P. Toropova, Alessandra Roncaglioni, and Emilio Benfenati,
  Chapter 27. Prediction of Biochemical Endpoints by the CORAL Software: Prejudices, Paradoxes, and Results. **In Book**: *Orazio Nicolotti (ed.)*, Computational Toxicology: Methods and Protocols, Methods in Molecular Biology, **2018**, vol. 1800, pp. 573-583. https://doi.org/10.1007/978-1-4939-7899-1_27, © Springer Science+Business Media, LLC, part of Springer Nature

- Andrey A. Toropov and Alla P. Toropova,
  Chapter 8. Improved Model for Biodegradability of Organic Compounds: The Correlation Contributions of Rings. **In Book**: *Bidoia E., Montagnolli R. (Eds)* Toxicity and Biodegradation Testing. Methods in Pharmacology and Toxicology. Humana Press, New York, NY. **2018**, pp. 147-183. DOI: 10.1007/978-1-4939-7425-2_8

- Alla P. Toropova, Andrey A. Toropov, Emilio Benfenati, Robert Rallo, Danuta Leszczynska and Jerzy Leszczynski,
  ***Chapter* 12**. Development of Monte Carlo Approaches in Support of Environmental Research. **In Book**: *Roy, K.* (*eds*) Advances in QSAR modeling. Advances in Computational Chemistry and Physics. Springer International Publishing AG, **2017,** Volume 24, pages 453-469.

- Alla P. Toropova, Andrey A. Toropov, Aleksandar M. Veselinović, Jovana B. Veselinović, Danuta Leszczynska, Jerzy Leszczynski,
  Chapter 8. Quasi-Smiles as a novel tool for Prediction of Nanomaterials' endpoints. **In Book**: *Speck-Planche A.* (*eds*) Multi-Scale Approaches in Drug Discovery: From Synthetic Methodologies and Biological Assays to In Silico Experiments and Back. Elsevier Science & Technology Books, **2017,** pages 191-221. ISBN: 0081011296, 9780081011294

- Alla P. Toropova, P. Ganga Raju Achary, Andrey A. Toropov,
  Chapter 59. Quasi-SMILES for Nano-QSAR Prediction of Toxic Effect of Al_2O_3 Nanoparticles. **In Book:** Pharmaceutical Sciences: Breakthroughs in Research and Practice (2 Volumes) **2017**, pages 1573-1584. DOI: 10.4018/978-1-5225-1762-7

- A.A. Toropov, A.P. Toropova, E. Benfenati, O. Nicolotti, A. Carotti, K. Nesmerak, A.M. Veselinović, J.B. Veselinović, P.R. Duchowicz, D. Bacelo, E.A. Castro, B.F. Rasulev, D. Leszczynska, J. Leszczynski,

Chapter 36. QSPR/QSAR Analyses by Means of the CORAL Software: Results, Challenges, Perspectives. **In Book**: Pharmaceutical Sciences: Breakthroughs in Research and Practice (2 Volumes) **2017,** pages 929-955. DOI: 10.4018/978-1-5225-1762-7

- Toropov A.A., Toropova A.P., Nesmerak K., Veselinović A.M., Veselinović J.B., Leszczynska D., Leszczynski J.,
  Chapter 12. Development of the latest tools for building up "nano-QSAR": Quantitative features—property/activity relationships (QFPRs/QFARs). **In Book**: *J. Leszczynski, M.K. Shukla (Eds.)*. Practical Aspects of Computational Chemistry IV. Springer **2016**, pp. 353-396. DOI: 10.1007/978-1-4899-7699-4_12

- Toropov A.A**.,** Alzheimer's disease: SMILES to preserve wisdom. **2015**. *Available on the Atlas of Science website*: http://atlasofscience.org/alzheimers-disease-smiles-to/

- Toropov A.A., Toropova A.P. The CORAL software as spyglass to detect "coral reefs" in ocean of nanotechnologies. **2015**. *Available on the Atlas of Science* website: http://atlasofscience.org/the-coral-software-as-spyglass-to-detect-coral-reefs-in-ocean-of-nanotechnologies/#more-1267

- A.A. Toropov, A. P. Toropova, E. Benfenati, O. Nicolotti, A. Carotti, K. Nesmerak, A. M.Veselinovic, J. B. Veselinovic, P. R. Duchowicz, D. Bacelo, E. A. Castro, B. F. Rasulev, D. Leszczynska, J. Leszczynski,
  Chapter 15. QSPR/QSAR analyses by means of the CORAL software: results, challenges, perspectives. **In Book**: *Roy, K. (Eds.)* Quantitative Structure-Activity Relationships in Drug Design, Predictive Toxicology, and Risk Assessment. **2015**, pp. 1-531. Hershey, PA: IGI Global. doi:10.4018/978-1-4666-8136-1 http://www.igi-global.com/book/quantitative-structure-activity-relationships-drug/120080

- Georgia Melagraki, Antreas Afantitis, Andrey A. Toropov, Haralambos Sarimveis, Olga Igglessi – Markopoulou**,**
  Chapter 4. QSAR models constructed by optimal descriptors and by multiple regression analysis for the prediction of carbonic anhydrase II inhibitory activity of substituted aromatic sulphonamides. **In Book**: *E.A. Castro (Eds.)* QSPR-QSAR Studies on Desired Properties for Drug Design, **2010**, 95-116. ISBN: 978-81-308-0404-0. http://www.trnres.com/ebook/uploads/castro/T_1310531320Castro%204.pdf

- A.A. Toropov, B.F. Rasulev, D. Leszczynska, and J. Leszczynski,
  Chapter 14. New Approach to QSPR Modeling of Fullerene C60 Solubility in Organic Solvents: An Application of SMILES- Based Optimal Descriptors. **In Book**: *F. Cataldo, and T.Da Ros. (Eds.)* Medicinal Chemistry and Pharmacological Potential of Fullerenes and Carbon Nanotubes, Vol. 1, **2008**, pp. 337-350. http://www.springerlink.com/content/978-1-4020-6844-7

Articles in Impacted (or Peer-reviewed) Journals

2024:

1. Alla P. Toropova and Andrey A. Toropov, The coefficient of conformism of a correlative prediction (CCCP): Building up reliable nano-QSPRs/QSARs for endpoints of nanoparticles in different experimental conditions encoded via quasi-SMILES. Science of the Total Environment 927 (2024) 172119. https://doi.org/10.1016/j.scitotenv.2024.172119
2. Alla P. Toropova, João Meneses, Ernesto Alfaro-Moreno, Andrey A. Toropov, The system of self-consistent models based on quasi-SMILES as a tool to predict the potential of Nano-inhibitors of human lung carcinoma cell line A549 for different experimental conditions. Drug

and Chemical Toxicology, Published online: 06 Feb 2023. https://doi.org/10.1080/01480545.2023.2174986
3. Toropova, A.P., Toropov, A.A., Raska, I., Raskova, M., Carbó-Dorca, R. The prediction of the retention time of pesticide based on the Monte Carlo method with the use of the vector of the ideality of correlation and correlation weights of local symmetry fragments. J Math Chem (2023) Published: 23 September 2023. https://doi.org/10.1007/s10910-023-01517-0
4. A.P. Toropova, A.A. Toropov, A. Roncaglioni, E. Benfenati, Does the accounting of the local symmetry fragments in quasi-SMILES improve the predictive potential of the QSAR models of toxicity towards tadpoles? Toxicology Mechanisms and Methods, Accepted March 15, 2024. https://doi.org/10.1080/15376516.2024.2332617

2023:

5. Toropov, A.A., Di Nicola, M.R., Toropova, A.P., Roncaglioni, A., Dorne, J.L.C.M., Benfenati, E. Quasi-SMILES: Self-consistent models for toxicity of organic chemicals to tadpoles. Chemosphere 312 (2023) 137224. https://doi.org/10.1016/j.chemosphere.2022.137224
6. Toropova A.P., Toropov A.A., Fjodorova N. *In Silico* Simulation of Impacts of Metal Nano-Oxides on Cell Viability in THP-1 Cells Based on the Correlation Weights of the Fragments of Molecular Structures and Codes of Experimental Conditions Represented by Means of Quasi-SMILES. International Journal of Molecular Sciences, 24 (3), (2023) 2058. DOI: 10.3390/ijms24032058
7. Alla P. Toropova and Andrey A. Toropov, Quasi-SMILES as a basis to build up models of endpoints for nanomaterials. Environmental Technology,44(28), 2023, 4460-4467. https://doi.org/10.1080/09593330.2022.2093655
8. Das, N.R., Sharma, T., Mallick, A., Toropova, A.P., Toropov, A.A., Achary, P.G.R. Computational Approach in Designing and Development of Novel Inhibitors of AKR1C1. Smart Innovation, Systems and Technologies, 2023, 317, 325–337. https://doi.org/10.1007/978-981-19-6068-0
9. Nilima R. Das, Tripti Sharma, Andrey A. Toropov, Alla P. Toropova, P. Ganga Raju Achary, Machine-Learning Technique, QSAR, and Molecular Dynamics for hERG-Drug Interactions. Journal of Biomolecular Structure & Dynamics, 41:23, (2023) 13766-13791. https://doi.org/10.1080/07391102.2023.2193641
10. A.P. Toropova, A.A. Toropov, A. Roncaglioni, E. Benfenati, Binding organophosphate pesticides to acetylcholinesterase: Risk assessment using the Monte Carlo method. Toxicological & Environmental Chemistry, 2023, 105:1-7, 19-27. DOI: 10.1080/02772248.2023.2181348
11. Andrey A. Toropov, Devon Barnes, Alla P. Toropova, Alessandra Roncaglioni, Alasdair R. Irvine, Rosalinde Masereeuw, Emilio Benfenati, CORAL models for drug induced nephrotoxicity. Toxics, 2023; 11(4): 293. https://doi.org/10.3390/toxics11040293
12. A.A. Toropov, A.P. Toropova, A. Roncaglioni, E. Benfenati, The system of self-consistent models for pesticide toxicity to *Daphnia Magna*, Toxicology Mechanisms and Methods, 2023, 33:7, 578-583. DOI: 10.1080/15376516.2023.2197487
13. A.P. Toropova, A.A. Toropov, A. Roncaglioni, E. Benfenati, D. Leszczynska, J. Leszczynski, CORAL: Model of ecological impact of heavy metals on soils via the study of modification of concentration of biomolecules in Earthworms (*Eisenia fetida*). Archives of Environmental Contamination and Toxicology, (2023) 84:504–515. https://doi.org/10.1007/s00244-023-01001-5
14. A.P. Toropova, A.A. Toropov, A. Roncaglioni, E. Benfenati, The system of self-consistent models: QSAR analysis of drug-induced liver toxicity. Toxics, 2023; 11(5): 419. https://doi.org/10.3390/toxics11050419
15. J. Meneses, M. González-Durruthy, E. Fernandez-de Gortari, A.P. Toropova, A.A. Toropov, E. Alfaro-Moreno. A Nano-QSTR model to predict nano-cytotoxicity: an approach using human

lung cells data. Particle and Fibre Toxicology, (2023) 20:21. https://doi.org/10.1186/s12989-023-00530-0
16. A.A. Toropov, A.P. Toropova, A. Roncaglioni, E. Benfenati, Does the accounting of the local symmetry fragments in SMILES improve the predictive potential of the QSPR-model for Henry's law constants? Environmental Science: Advances, 2023, 2, 916-921. https://doi.org/10.1039/D3VA00012E
17. Nilima R. Das, Tripti Sharma, Anshuman Chandra,Vijay Kumar Goel, Andrey A. Toropov, Alla P. Toropova, P. Ganga Raju Achary, Isoprenylcysteine Carboxyl Methyltransferase Inhibitors: QSAR, Docking and Molecular Dynamics Studies. Journal of Molecular Structure, 1291, 2023, 135966. https://doi.org/10.1016/j.molstruc.2023.135966
18. A.A. Toropov, A.P. Toropova, P.G.R. Achary, Prediction of n-octanol-water partition coefficient of platinum (IV) complexes using correlation weights of fragments of local symmetry. Structural Chemistry, 34, 1517–1526 (2023). https://doi.org/10.1007/s11224-023-02197-x
19. A.A. Toropova, A.P. Toropova, D. Leszczynska, J. Leszczynski, Development of self-consistency models of anticancer activity of nanoparticles that were observed under different experimental conditions using quasi-SMILES. Nanomaterials, 2023, 13(12), 1852. https://doi.org/10.3390/nano13121852
20. Alla P. Toropova, Andrey A. Toropov, Alessandra Roncaglioni, Emilio Benfenati, The enhancement scheme for the predictive ability of QSAR: a case of mutagenicity. Toxicology in Vitro 91 (2023) 105629. https://doi.org/10.1016/j.tiv.2023.105629
21. A.P. Toropova, A.A. Toropov, A. Roncaglioni, E. Benfenati, D. Leszczynska, J. Leszczynski, The validation of predictive potential via the system of self-consistent models: the simulation of blood-brain barrier permeation of organic compounds. Journal of Molecular Modeling, 29 (2023) 218. https://doi.org/10.1007/s00894-023-05632-2
22. Alla P. Toropova, Andrey A. Toropov, Parvin Kumar, Ashwani Kumar, P. Ganga Raju Achary, Fragments of local symmetry in a sequence of amino acids: Does one can use for QSPR/QSAR of peptides? Journal of Molecular Structure 1293 (2023) 136300. https://doi.org/10.1016/j.molstruc.2023.136300
23. Andrey A. Toropov, Alla P. Toropova, Alessandra Roncaglioni, Emilio Benfenati, *In silico* prediction of the mutagenicity of nitroaromatic compounds using correlation weights of fragments of local symmetry. Mutation Research - Genetic Toxicology and Environmental Mutagenesis 891 (2023) 503684. https://doi.org/10.1016/j.mrgentox.2023.503684
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Conferences and workshops

SCARLET – Istituto di Ricerche Farmacologiche Mario Negri– April 2-4, 2008

1.A.A. Toropov, A.P. Toropova, E. Benfenati
QSAR modeling of carcinogenicity and mutagenic potency by optimal SMILES-based descriptors 2. E. Benfenati, A. Chana, A.A. Toropov, A.P. Toropova
QSAR modeling of carcinogenicity based on local attributes of SMILES and special codes of cycles 1st SETAC Europe Special Science Symposium 23-24 October 2008, Brussels
3. A. Chana, A.A. Toropov, A.P. Toropova, E. Benfenati, X.-K. Hu, H.-M. Hwang, B.F. Rasulev, T. Puzyn, J. Leszczynski
QSAR modelling of biological activity by descriptors calculated with simplified molecular input line entry system (SMILES)

SETAC – Goteborg (Sweden) – May 2009

1. A.A. Toropov, A.P. Toropova and E. Benfenati
QSAR modelling of mutagenicity: the applicability domain definition and the estimation of predictive ability
2. A.A. Toropov, A.P. Toropova, X.-K. Hu, H.-M. Hwang, B.F. Rasulev, T. Puzyn, E. Benfenati, D. Leszczynska, and J. Leszczynski
QSAR model of toxicity towards E. Coli bacteria for nanosized oxides by SMILES-based optimal descriptors

VII World Congress on Alternatives & Animal Use in the Life Sciences – Italy, Rome , September, 2009

A.A. Toropov, A.P. Toropova, E. Benfenati
Additive smiles-based carcinogenicity models: a new approach to increase robustness and prediction

Orchestra March 2011, Milan, Italy

1. Alla. P. Toropova, Andrey A. Toropov, Emilio Benfenati, Giuseppina Gini
   Danuta Leszczynska, Jerzy Leszczynski
   QSAR modeling of toxicity of binary mixtures by CORAL software
2. Andrey A. Toropov, Alla. P. Toropova, Emilio Benfenati, Giuseppina Gini,
   Danuta Leszczynska, Jerzy Leszczynski. QSAR modeling of cytotoxicity of nanoparticles

SETAC May 2011, Milan, Italy

1. Andrey A. Toropov, Alla P. Toropova, Emilio Benfenati, Giuseppina Gini
SMILES-based QSPR model for Bioconcentration Factor
2. Andrey A. Toropov, Alla P. Toropova, Emilio Benfenati, Giuseppina Gini
QSAR for toxicity of aromatic aldehydes to Tetrahymena pyriformis
using correlation weights of physicochemical situations
3. Andrey A. Toropov, Alla P. Toropova, Emilio Benfenati, Giuseppina Gini
QSAR models for toxicity of organic substances to Daphnia magna
built up by using the CORAL freeware

QSAR 2014, June 16-20, 2014, Milan Italy

1. F. Pizzo, D. Gadaleta, A. Lombardo, A. A. Toropov, A. P.Toropova, S. E. Escher, O. Nicolotti, A. Carotti, E. Benfenati. Different Approaches for Modeling Repeated Dose Toxicity, Lecture
2. Alla P. Toropova, Andrey A. Toropov, Aleksandar M. Veselinović, Jovana B. Veselinović, Emilio Benfenati, Orazio Nicolotti, Angelo Carotti, Danuta Leszczynska, Jerzy Leszczynski . Optimal descriptor as a translator of eclectic data into models for mutagencity of fullerene in different conditions, Poster
3.Alla P. Toropova, Andrey A. Toropov, Emilio Benfenati. Quasi-QSPR/QSAR: reasons, tasks, results, Poster
4. V. H. Masand, A. P. Toropova, A. A. Toropov, D. T. Mahajan. QSAR Modeling of Anxiolytic Activity Taking into Account the Presence of Keto-Enol Tautomerism, Poster
5. V. H. Masand, A. A. Toropov, A. P. Toropova, D. T. Mahajan. The Monte Carlo Method as a Tool to Predict Anti-Malarial Activity of 4-Aminoquinolines, Poster

12th International Conference on Nanosciences (NN15). Thessaloniki, Greece, 7 - 11 July 2015

Manganelli, S., Leone, C., Toropov, A.A., Toropova, A.P., Benfenati, E. (2015): QSAR model for cytotoxicity of silica nanoparticles on human embryonic kidney cells. (poster presentation).

CompNanoTox2015. Malaga, Spain, 4-6 November 2015

Toropova, A.P., Toropova, A.A., Benfenati, E. (2015): Modelling nanomaterials with CORAL. (poster presentation).

The SETAC Europe 29th Annual Meeting, held on 26-30 May 2019 in Helsinki, Finland

E. Carnesecchi, A.A. Toropov, A.A. Toropova, N. Kramer, C. Svendsen, J. Dorne, E. Benfenati.
TU317: CORAL: innovative open source QSAR model for predicting acute contact toxicity of binary mixtures of plant protection products in honeybee (A. mellifera). (poster presentation).

Nanosafety workshop - From Molecules to Public Health (November 11-12, 2021, Portugal, Braga).
Andrey Toropov, Alla Toropova. Cheminformatics and in silico tools: What is Quasi-SMILES? How to use for nano-QSPR/QSAR?

28th Annual Meeting of the Slovenian Chemical Society (September 21 – 23, 2022, Portorose, Slovenia).
Natalja Fjodorova, Marjana Novič, Katja Venko, Bakhtiyor Rasulev, Melek Türker Saçan, Gulcin Tugcu, Safiye Sağ Erdem, Elifcan Çalışkan, Alla P. Toropova, Andrey A. Toropov.
Investigation of aquatic toxicity of fullerene derivatives using cheminformatics approach.

SB05.03.05, April 11, 2023-MRS Spring Meeting & Exhibit in San Francisco.
B. Rasulev, M. Zamani, S. Szwiec, G. Casanola-Martin, N. Fjodorova, M. Novič, K. Venko, M. Türker, G. Tugcu, S. Erdem, A. Toropova, A. Toropov.
Assessing Toxicity of Fullerene Nanostructures Using Human Proteins by Combined Computational Chemistry and Cheminformatics Approach.
https://www.mrs.org/meetings-events/spring-meetings-exhibits/2023-mrs-spring-meeting/call-for-papers/presentations/detail/2023_mrs_spring_meeting/3838685-202304110845