

Department of Systems Biology
Center for Computational Biology and Bioinformatics
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Education:

August 2007 – August 2012 **Ph.D. in Chemistry** Department of Chemistry and Biochemistry, Utah State University
GPA=4.0 emphasis: physical/theoretical/computational/quantum chemistry
Graduate Advisor: A. I. Boldyrev

September 2002 – June 2007 **B.Sc. in Chemistry** Department of Science, Peoples' Friendship University of Russia, Moscow
GPA=4.0 Undergraduate Advisor: K. V. Bogenko

Awards and Honors:

2012 **The Marjorie H. Gardner Teaching Award**, USU.
2012 **The 2011-2012 College of Science Ph. D. Graduate Researcher of the Year**, USU.
2011 **American Chemical Society Physical Chemistry Division Outstanding Student Poster Award**
at the 242nd American Chemical Society National Meeting, Denver, CO.
2011 **The School of Graduate Studies Dissertation Fellowship**, USU.
2011 **The Outstanding Graduate Student in Chemistry Award**, USU.
2010 **American Chemical Society Physical Chemistry Division Outstanding Student Poster Award**
at the 239th American Chemical Society National Meeting, San Francisco, CA.
2010 **IBM-Zerner Award for Graduate Students**
at the 50th Sanibel Symposium, Quantum Theory Project, St. Simons Island, GA.
2008 **Award for Early Research Progress in Chemistry**, USU.
2007 **B.Sc. Honor Diploma**, PFUR.

Research Experience:

09/2012 – present **Postdoctoral Research Scientist**
Research Group of Barry Honig
Department of Biochemistry and Molecular Biophysics
Columbia University, New York, NY, USA

08/2007 – 08/2012 **Graduate Researcher**
Research Group of Alexander I. Boldyrev*
Department of Chemistry and Biochemistry
Utah State University, Logan, UT, USA

*In collaboration with:

Professor Lai-Sheng Wang, Brown University
Professor Kit H. Bowen, Johns Hopkins University
Prof. Manfred M. Kappes and Prof. Oliver Hampe, The Institute of Nanotechnology, Karlsruhe, Germany
Dr. Konstantin Pokhodnya, Center of Nanoscale Science and Engineering, North Dakota State University
Prof. Philippe F. Weck, University of Nevada Las Vegas
Prof. Gabriel Merino, Universidad de Guanajuato, Mexico
Prof. Thomas Heine, Jacobs University, Germany
Prof. Jesus Ugalde, Donostia International Physics Center, Spain
Prof. Anastassia Alexandrova, University of California, Los Angeles

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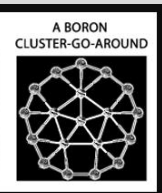
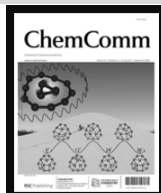
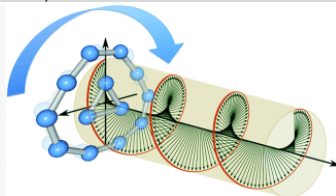
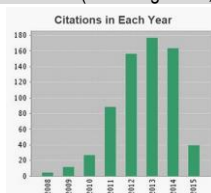
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List of Publications:

26 papers (5 communications + 1 invited review + 3 invited chapters + 2 invited articles + 15 peer reviewed articles)

Sum of the times cited 826 (as of August 12, 2015)

h-index 16 (as of August 12, 2015)



26. C. S. Chen, S. Hong, I. Indra, **A. P. Sergeeva**, R. B. Troyanovsky, L. Shapiro, B. Honig, and S. M. Troyanovsky *J. Cell Biol.* 2015, ASAP (DOI: 10.1083/jcb.201412064)
25. **A. P. Sergeeva**, I. A. Popov, Z. A. Piazza, W. L. Li, C. Romanescu, L. S. Wang, A. I. Boldyrev *Acc. Chem. Res.*, 2014, 47, 1349-1358 (DOI: 10.1021/ar400310g) (**invited review**)
24. **A. P. Sergeeva**, Z. A. Piazza, C. Romanescu, W. L. Li, A. I. Boldyrev, L. S. Wang *J. Am. Chem. Soc.* 2012, 134, 18065-18073 (DOI: 10.1021/ja307605t)
23. E. Osorio, **A. P. Sergeeva**, J. C. Santos, W. Tiznado *Phys. Chem. Chem. Phys.* 2012, 14, 16326-16330 (DOI: 10.1039/C2CP42674A)
22. C. Romanescu, T. R. Galeev, **A. P. Sergeeva**, W. L. Li, L. S. Wang, A. I. Boldyrev *J. Organomet. Chem.* 2012, 721-722, 148-154 (DOI: 10.1016/j.jorganchem.2012.07.050) (**invited article**)
21. J. Zhang, **A. P. Sergeeva**, M. Sparta, A. N. Alexandrova. *Angew. Chem. Int. Ed.* 2012, 51, 8512-8515 (**communication**).
designated as a VIP paper, highlighted in Nature Nanotechnology, Angew. Chem. Int. Ed., ChemistryViews, and other media
20. Z. A. Piazza, W. L. Li, C. Romanescu, **A. P. Sergeeva**, L. S. Wang, A. I. Boldyrev. *J. Chem. Phys.* 2012, 136, 104310
19. **A. P. Sergeeva**, B. B. Averkiev, H. J. Zhai, A. I. Boldyrev, L. S. Wang. *J. Chem. Phys.* 2011, 134, 224304
JCP Editors' Choice for 2011
18. **A. P. Sergeeva**, A. I. Boldyrev. *J. Clust. Sci.* 2011, 22, 321-329 (**invited article**)
17. T. R. Galeev, Q. Chen, J. C. Guo, H. Bai, C. Q. Miao, H. G. Lu, **A. P. Sergeeva**, S. D. Li, A. I. Boldyrev. *Phys. Chem. Chem. Phys.* 2011, 13, 11575-11578 (**communication**)
16. C. Romanescu, **A. P. Sergeeva**, W. L. Li, A. I. Boldyrev, L. S. Wang *J. Am. Chem. Soc.* 2011, 133, 8646-8653
15. G. Martinez-Guajardo, **A. P. Sergeeva**, A. I. Boldyrev, T. Heine, J. M. Ugalde, G. Merino. *Chem. Comm.*, 2011, 47, 6242-6244 (**communication**)
Featured on the cover
14. K. Pokhodnya, C. Olson, X. Dai, D. L. Schulz, P. Boudjouk, **A. P. Sergeeva**, A. I. Boldyrev. *J. Chem. Phys.*, 2011, 134, 014105
13. P. F. Weck, **A. P. Sergeeva**, E. Kim, A. I. Boldyrev, and K. R. Czerwinski. *Inorg. Chem.*, 2011, 50, 1039-1046
12. **A. P. Sergeeva**, A. I. Boldyrev. In *Aromaticity and Metal clusters. Atoms, Molecules, and Clusters. Structure, Reactivity, and Dynamics* book series. P. K. Chattaraj, Ed.; CRC Press, Taylor & Francis Group, Boca Raton, 2010, pp. 55-68. (**invited chapter**)
11. **A. P. Sergeeva**, A. I. Boldyrev. *Phys. Chem. Chem. Phys.*, 2010, 12, 12050-12054 (**communication**)
10. **A. P. Sergeeva**, A. I. Boldyrev. *Organometallics*, 2010, 29, 3951-3954
9. H. Wang, Y. J. Ko, K. H. Bowen, **A. P. Sergeeva**, B. B. Averkiev, A. I. Boldyrev. *J. Phys. Chem. A*, 2010, 114, 11070-11077
8. **A. P. Sergeeva**, B. B. Averkiev, A. I. Boldyrev. In *Metal-Metal Bonding. Structure and Bonding* book series. G. Parkin, Ed.; Volume 136, Springer, Berlin/Heidelberg, 2010, pp. 275-306. (**invited chapter**)
7. **A. P. Sergeeva**, A. I. Boldyrev. *Comm. Inorg. Chem.*, 2010, 31, 2-12
6. W. Huang, **A. P. Sergeeva**, H. J. Zhai, B. B. Averkiev, L. S. Wang, A. I. Boldyrev. *Nature Chemistry*, 2010, 2, 202-206
Highlighted in C&EN, Vol. 88, Issue 28, p. 9 and in Chemistry World, Vol. 7, No. 3, 2010
5. X. B. Wang, **A. P. Sergeeva**, X. P. Xing, M. Massauti, T. Karpuschkin, O. Hampe, A. I. Boldyrev, M. Kappes, L. S. Wang. *J. Am. Chem. Soc.*, 2009, 131, 9836-9842
4. X. B. Wang, **A. P. Sergeeva**, J. Yang, X. P. Xing, A. I. Boldyrev, L. S. Wang. *J. Phys. Chem. A*, 2009, 113, 5567-5576
3. D. Yu. Zubarev, **A. P. Sergeeva**, A. I. Boldyrev. In *Chemical Reactivity Theory. A Density Functional View*. Chattaraj, P. K., Ed.; CRC Press. Taylor & Francis Group: New York, 2009, pp. 439-452. (**invited chapter**)
2. **A. P. Sergeeva**, D. Yu. Zubarev, H. J. Zhai, L. S. Wang, A. I. Boldyrev. *J. Am. Chem. Soc.*, 2008, 130, 7244-7246 (**communication**)
1. J. Yang, X. P. Xing, X. B. Wang, L. S. Wang, **A. P. Sergeeva**, A. I. Boldyrev. *J. Chem. Phys.*, 2008, 128, 091102

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Presentations at Professional Meetings:

- 08/28 – 09/01, 2011 *"Rationalizing chemical bonding in molecular Wankel motors"*
Division of Physical Chemistry, at the 242nd National ACS Meeting, Denver, CO.
03/21 – 03/25, 2010 *"Structure, stability and unique chemical bonding of pure boron clusters: All-boron hydrocarbon analogs"*
Division of Physical Chemistry, at the 239th National ACS Meeting, San Francisco, CA.
03/21 – 03/25, 2010 *"Deciphering chemical bonding: From clusters to solids"*
Division of Inorganic Chemistry, at the 239th National ACS Meeting, San Francisco, CA.
02/24 – 03/02, 2010 *"Towards unified chemical bonding theory"*
The 50th Sanibel Symposium, Quantum Theory Project, St. Simons Island, GA.
06/13, 2009 *"Ab Initio, Photoelectron Spectroscopy, and Mass-Spectroscopic probing of negative electron binding energy, electronic structure and stability of isolated and solvated multiply-charged anions"*
Celebration of 40 Years of Ion chemistry, Carl Lineberger and His Co-Conspirators, Boulder, CO.
08/17 – 08/21, 2008 *"Peculiarities of 1-hydroxy-3,6,8-pyrene-trisulfonate triply charged anion"*
Division of Physical Chemistry, at the 236th National ACS Meeting, Philadelphia, PA.

Teaching Experience:

- 2015 Two-month lecture and practicum postdoc course on teaching fundamentals entitled "What you need to know to be a successful teacher", Columbia University, New York, NY
2010-2011 Teaching Assistantship, General Chemistry 1210 Recitations, USU, Logan, UT
2009-2011 Guest lecturing general chemistry (class of ~300 students), physical chemistry and quantum chemistry to substitute for Prof. Boldyrev and Prof. Ensign at Utah State University
2010 **Process Oriented Guided Inquiry Learning Workshop**, Westminster College, Salt Lake City, UT.
2007 Teaching Assistant Workshop, Utah State University, Logan, UT.
2006 One semester course in pedagogy, PFUR, Moscow, Russia.

Mentoring:**Graduate Students**

Timur Galeev (2009-2012); Ivan Popov (2009-2012); Caleb Allpress (2009); Andrey Vorobiev (2008); Alexander Ivanov (2009-2012).

Highschool Students

Philip Cutler (2011); Dustin Hicken (2010); Rebekah Jung (2009); Ellie Edwards (2008) within the Summer Internship Program at USU.

Career objective:

Pursue a scientific career in academia

Professional Activities:

- 2009 – 2011 Departmental Representative of Graduate Student Senate at USU
2008 – present Member of American Chemical Society

Professional References:**Alexander I. Boldyrev**

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