Olga V. Boltalina

Date of birth:	March 10, 1960
Nationality:	Russian (U.S. Permanent Resident)
Position:	Senior Research Associate Department of Chemistry, Colorado State University, USA
Education:	1977–1982 MS, Chemistry, Moscow State University (MSU), Russia 1985–1990 PhD in Physical Chemistry with Lev N. Sidorov, "Thermochemical Properties of 3d Transition-Metal Fluorides and Their Anions", MSU 1998 DSci, Physical Chemistry, "Gas-Phase Thermochemistry of Fullerenes and the Fluorination of Fullerenes", MSU 2004–Present Professor of Physical Chemistry, MSU
Professional associations:	American Chemical Society, Division of Fluorine Chemistry, Electrochemical Society Division of Fullerenes, Nanotubes and Carbon Nanostructures
Awards:	2000, 1996 International Author Award, Royal Society of Chemistry 2000 I. I. Shuvalov Prize, Moscow State University 1998–2001 President of Russia Award for Young Doctors of Science 2002 Lomonosov Prize, Moscow State University 2003–2004 Friedrich Wilhelm Bessel Award, Alexander von Humboldt Foundation
Current research interests:	Chemistry of fullerenes, endometallofullerenes, and azafullerenes; fluorination, fluoroalkylation, and chlorination of fullerenes and other materials; molecular and electronic structures and physicochemical properties of fullerene derivatives and their applications as electron acceptors in energy storage and conversion and as nanomolecular carriers in biomedical and material science; mass spectrometry; gas-phase ion chemistry and thermochemistry
Hobbies:	Wildflower photography, hiking, travel, art, and reading

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I chose chemistry as a career because… it gives me the opportunity to discover and make new things every day.

When I wake up… I use Skype to catch up with my son Stepan (who is currently finishing his PhD at MSU), since this time of day is the best compromise for our busy schedules given the 10 hour time-zone difference between Colorado and Moscow.

If I could be anyone for a day, I would be… an astronaut to be able to see our beautiful planet from space.

My biggest inspiration is… my partner in life and science, Steven Strauss.

My most exciting discovery to date was… making the fluorofullerene $C_{60}F_{18}$ in 1993, as this endeavor transformed me from a gas-phase ion physical chemist to a self-taught synthetic fluorine chemist.

The secret of being a successful scientist is… being curious and skeptical to a fault and being able to find co-workers and collaborators who share these traits with you.

The best advice I have ever been given… was by my friend Boris Zemva: "Life should be fun!"

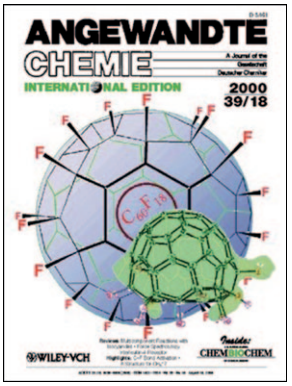
The part of my job I enjoy the most is… planning and performing experiments with our students and other co-workers and discussing the results with them.

If I could be a piece of lab equipment, I would be… a state-of-the-art mass spectrometer. Determining the molecular mass of a new compound is the most fundamental experiment conceivable for a synthetic chemist! I am amazed how much progress has been made in the science of mass spectrometry in the past two decades.

The most important invention in the past 100 years has been… the Internet, without a doubt. It has revolutionized everything we do with information, including data collection and exchange, scientific communication, and intercontinental collaboration between scientists.

My worst habit is… not being able to make myself discard all the old compounds from completed projects.

*The author presented on this page has recently published her **10th article** since 2000 in Angewandte Chemie*: "C_1-(C_{84}-C_2(11))$(CF_3)_{12}$: Trifluoromethylation Yields Structural Proof of a Minor C_{84} Cage and Reveals a Principle of Higher Fullerene Reactivity": I. E. Kareev, I. V. Kuvychko, N. B. Shustova, S. F. Lebedkin, V. P. Bubnov, O. P. Anderson, A. A. Popov, O. V. Boltalina, S. H. Strauss, *Angew. Chem.* **2008**, *120*, 6300–6303; *Angew. Chem. Int. Ed.* **2008**, 47, 6204–6207.



My five top papers:

1. "Electrochemical, Spectroscopic, and DFT Study of $C_{60}(CF_3)_n$ Frontier Orbitals (n 2–18): The Link between Double Bonds in Pentagons and Reduction Potentials": A. A. Popov, I. E. Kareev, N. B. Shustova, E. B. Stukalin, S. F. Lebedkin, K. Seppelt, S. H. Strauss,. O. V. Boltalina, L. Dunsch, *J. Am. Chem. Soc.* **2007**, *129*, 11551–11568.
2. "$C_{60}F_{18}$, a Flattened Fullerene: Alias a Hexa-Substituted Benzene": I. S. Neretin, K. A. Lyssenko, M. Yu. Antipin, Y. L. Slovokhotov, O. V. Boltalina, P. A. Troshin, A. Yu. Lukonin, L. N. Sidorov, R. Taylor, *Angew. Chem.* **2000**, *112*, 3411–3414; *Angew. Chem. Int. Ed.* **2000,** *39*, 3273–3276—featured on the cover (see above right).
3. "In Situ Synthesis and Characterization of Fullerene Derivatives by Knudsen-Cell Mass Spectrometry": O. V. Boltalina, A. A. Goryunkov, V. Yu. Markov, I. N. Ioffe, L. N. Sidorov, *Int. J. Mass Spectrom.* **2003**, *228*, 807–824.
4. "Ionization Energy of Fullerenes": O. V. Boltalina, I. N. Ioffe, L. N. Sidorov, G. Seifert, K. Vietze, *J. Am. Chem. Soc.* **2000**, *122*, 9745–9749.
5. "Synthesis and X-ray or NMR/DFT Structure Elucidation of Twenty-One New Trifluoromethyl Derivatives of Soluble Cage Isomers of C_{76}, C_{78}, C_{84}, and C_{90}": I. E. Kareev, A. A. Popov, I. V. Kuvychko, N. B. Shustova, S. F. Lebedkin, V. P. Bubnov, O. P. Anderson, K. Seppelt, S. H. Strauss, O. V. Boltalina, *J. Am. Chem. Soc.* **2008,** *130,* 13471–13489.

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