Curriculum Vitae

Dr. Nikita Ter-Oganessian

Born 3.12.1977, Russian citizenship,
married, 1 child.

Senior Researcher
Institute of Physics
Southern Federal University
Rostov-on-Don, Russia

Email: nikita.teroganessian (at) gmail.com

Education:

2015	Doctor of Science (Doktor fiz.-mat. nauk). Dissertation *Theory of successive phase transitions in multi-sublattice multiferroics* (in Russian), published on-line at https://doi.org/10.13140/RG.2.1.4516.6960.
2004	PhD degree in natural sciences (Dr. Rer. Nat.) with "summa cum laude" (with highest honor). PhD thesis *Active microrheology of semiflexible polymer solutions: computer simulations and scaling theory*, published on-line at http://d-nb.info/973922095/34
2000 – 2003	PhD studies at E22 Biophysics group of the Technical University of Munich, Germany
2000	Master's degree in physics, Rostov State University, Rostov-on-Don, Russia. Specialization: theoretical physics.
1998	Bachelor's degree in physics, Rostov State University, Rostov-on-Don, Russia

Languages:

English	fluent
German	good
Spanish	fair
Russian	mother tongue

Career:

Since January 2009	Senior Researcher, Institute of Physics, Southern Federal University, Rostov-on-Don, Russia

January 2006 – September 2010	Assistant Professor, Biophysics and Biocybernetics group, Physics Department of the Southern Federal University, Rostov-on-Don, Russia
2005 – 2008	Researcher, Institute of Physics, Southern Federal University, Rostov-on-Don, Russia
2004	Junior Researcher, Institute of Physics, Southern Federal University, Rostov-on-Don, Russia

Teaching:

January 2006 – September 2010	Regularly taught courses on Synergetics, Computer Programming and Numerical Methods, and Mathematical Software Packages at the undergraduate level

Research interests:

Theoretical solid state physics, ferroelectrics, magnetoelectrics, biophysics, soft matter, polymer physics, numerical simulations.

Computer skills:

Programming in C++, knowledge of parallel computing using MPI, *ab initio* simulations with Abinit, Quantum Espresso, VASP, basic knowledge of UNIX, knowledge of Wolfram Mathematica.

List of publications: (Web of Science: h-index 7, ResearcherID C-5023-2014)

1. V. P. Sakhnenko, N. V. Ter-Oganesyan, *Ferroelectric and ferroelastic phase states of crystals caused by atomic ordering*, Crystallogr. Reports **48**, 443 (2003).
2. V. P. Sakhnenko, N. V. Ter-Oganessian, *Atomic ordering and ferroelectricity*, Ferroelectrics **314**, 1 (2005).
3. J. Uhde, W. Feneberg, N. Ter-Oganessian, E. Sackmann, A. Boulbitch, *Osmotic force-controlled microrheometry of entangled actin networks*, Phys. Rev. Lett. **94**, 198102 (2005).
4. N. Ter-Oganessian, B. Quinn, D. A. Pink, A. Boulbitch, *Active microrheology of networks composed of semiflexible polymers: computer simulation of magnetic tweezers*, Phys. Rev. E **72**, 041510 (2005).
5. N. Ter-Oganessian, D. A. Pink, A. Boulbitch, *Active microrheology of networks composed of semiflexible polymers: theory and comparison with simulations*, Phys. Rev. E **72**, 041511 (2005).
6. J. Uhde, N. Ter-Oganessian, D. A. Pink, E. Sackmann, A. Boulbitch, *Viscoelasticity of entangled actin networks studied by long-pulse magnetic bead microrheometry*, Phys. Rev. E **72**, 061916 (2005).
7. A. M. Balagurov, E. Yu. Koroleva, A. A. Naberezhnov, V. P. Sakhnenko, B. N. Savenko, N. V. Ter-Oganessian, S. B. Vakhrushev, *The rhombohedral phase with incommensurate modulation in* $Na_{1/2}Bi_{1/2}TiO_3$, Phase Transitions **79**, 163 (2006).
8. V. P. Sakhnenko, N. V. Ter-Oganessian, *Phenomenological theory of phase transitions in multiferroic* $MnWO_4$*: magnetoelectricity and modulated magnetic order*, J. Phys.: Condens. Matter **22**, 226002 (2010).
9. V. P. Sakhnenko, N. V. Ter-Oganessian, *Improper ferroelectric antiferromagnetics*, Ferroelectrics **400**, 12 (2010).

10. V. P. Sakhnenko, N. V. Ter-Oganessian, *Praphase concept for the phenomenological description of magnetoelectrics*, Crystallogr. Reports **57**, 112 (2012).
11. V. P. Sakhnenko, N. V. Ter-Oganessian, *Exchange symmetry in description of magnetoelectrics*, Phys. Solid State **54**, 311 (2012).
12. V. P. Sakhnenko, N. V. Ter-Oganessian, *The magnetoelectric effect due to local noncentrosymmetry*, J. Phys.: Condens. Matter **24**, 266002 (2012).
13. N. V. Ter-Oganessian, *Dielectric and magnetic properties of magnetoelectric delafossites*, Ferroelectrics **438**, 101 (2012).
14. N. V. Ter-Oganessian, V. P. Sakhnenko, *Interpretation of magnetoelectric phase states using the praphase concept and exchange symmetry*, J. Phys.: Condens. Matter **26**, 036003 (2014).
15. N. V. Ter-Oganessian, *Cation-ordered* $A'_{1/2}A''_{1/2}B_2X_4$ *magnetic spinels as magnetoelectrics*, J. Magn. Magn. Mater. **364**, 47 (2014).
16. A. A. Spivakov, Yu. N. Zakharov, N. V. Ter-Oganessian, A. G. Lutokhin, E. M. Panchenko, and V.P. Sakhnenko, *Interrelation of ferroelectricity and tilting in perovskites using the phase transitions in* $PbZr_{1-x}Ti_xO_3$ *as an example*, Solid State Sci. **40**, 105 (2015).
17. I. P. Lobzenko, P. P. Goncharov, and N. V. Ter-Oganessian, *Electric polarization of magnetic domain walls in magnetoelectrics*, J. Phys.: Condens. Matter **27**, 246002 (2015).
18. R. Saha, S. Ghara, E. Suard, D. H. Jang, K. H. Kim, N. V. Ter-Oganessian, and A. Sundaresan, *Magnetoelectric effect in simple collinear antiferromagnetic spinels*, Phys. Rev. B **94**, 014428 (2016).
19. S. Ghara, N. V. Ter-Oganessian, and A. Sundaresan, *Linear magnetoelectric effect as a signature of long-range collinear antiferromagnetic ordering in the frustrated spinel* $CoAl_2O_4$, Phys. Rev. B **95**, 094404 (2017).

Selected oral presentations:

1. The 8th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity (RCBJSF-8), Tsukuba, Japan, May 15-19, 2006. *Ferroelectric and incommensurate phases induced by atomic ordering.*
2. 17th Russian conference on the physics of ferroelectrics, Saint-Petersburg, Russia, June 9-14, 2008. *Magnetoelectricity and modulated magnetic ordering in* $MnWO_4$.
3. The 9th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity (RCBJSF-9), Vilnius, Lithuania. June 15-19, 2008. *Magnetoelectrics with perovskite-like structure.*
4. 19th Russian conference on the physics of ferroelectrics, Moscow, Russia, June 20-23, 2011. *Multiferroics: points of view and facts.*
5. 19th Russian conference on the physics of ferroelectrics, Moscow, Russia, June 20-23, 2011. *Exchange symmetry in description of magnetoelectrics.*
6. Joint International Symposium: The 11th Russia/CIS/ Baltic/Japan Symposium on Ferroelectricity (RCBJSF-11) and 11th International Symposium on Ferroic Domains and Micro- to Nanoscopic Structures (ISFD-11), Ekaterinburg, Russia, August 20-24, 2012. *Interpretation of magnetoelectric phase states by means of praphase concept and exchange symmetry.*
7. 15th international symposium “Order, disorder and properties of oxides”, Rostov-on-Don, Russia September 7-12, 2012. *Magnetoelectric effect due to local noncentrosymmetric ion surroundings.*
8. International Workshop on Relaxor Ferroelectrics (IWRF-6), 1-6 July, 2013, Saint-Petersburg, Russia. *Theory of 1:1 cation ordering in* $AB'_{1/2}B''_{1/2}O_3$ *perovskites.*