Yulia N. Trenikhina

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Education

2008 till present	Illinois Institute of Technology, Chicago, IL USA - Physics Major Ph.D. candidate.
2002 - 2007	Saratov State University, Saratov, Russia - Masters Degree in Physics.

Research and academic experience

01/2008 till present

Illinois Institute of Technology, Chicago IL, USA
Ph.D. program in Physics.

Areas of research: characterization of materials by utilizing synchrotron radiation, material fabrication and engineering.

Spectroscopic techniques employed for material characterization including absorption spectroscopy (EXAFS, XANES) and 2D diffraction at the APS at Argonne National Laboratory, photoemission spectroscopy at Wisconsin Synchrotron Radiation Center (SRC). Material fabrication by pulsed laser deposition and semiconductor synthesis including crystal growth conducted at the laboratories on IIT campus.

Teaching assistantship.
I was teaching assistant for the following undergraduate courses: General Physics II: Electricity and magnetism (PHYS 221), General Physics III (PHYS 223).

08/2010

Los Alamos National Laboratory, Los Alamos NM, USA
2010 LANSCE School on Neutron Scattering.

06/2006-09/2006 **Fermi National Accelerator Laboratory, Batavia IL, USA**
Summer Internship for Physics Major.

Project: study of radiation requirements and radiation impact on cryogenic thermometry for International Linear Collider.
Duties: the design and construction of experimental set-up for temperature sensors calibration, testing and data analysis.

09/2002-05/2007 **Saratov State University, Saratov, Russia**
M.S. thesis research project in Physics.
Undergraduate research.

Area: study of non-linear dynamics of biological systems.
Duties: the development of a mathematical model of neuron impulse activity; simulation, analysis and processing of the data on spiking activity of neurons with subthreshold oscillations.

Conferences

1st North American core shell spectroscopy conference NACSSC 2010, Denver CO, USA
Name of the talk: “Study of Irradiated Mod.9Cr-1Mo Steel by Synchrotron XAS”.

Publications

1. *Study of Irradiated Mod.9Cr-1Mo Steel by Synchrotron EXAFS.* Li, M., D. Olive, Y. Trenikhina, H. Ganegoda, J. Terry, and S. A. Maloy. Journal of Nuclear Materials submitted (2010).

2. *Radiation requirements and testing of cryogenic thermometers for the ILC.* T.Barnett, Yu.P. Filippov, N.V.Mokhov, N.Nakao, A.L.Klebaner, S.A.Korenev, J.C.Theilacker, J.Trenikhina, K.Vaziri. AIP Conference Proceedings, Volume 985, 2008, pages 973-980.

3. *Noise-induced firing patterns in generalized neuron model with subthreshold oscillations.* L. Ryazanova**,** Y**.** Trenikhina, R. Zhirin, and D. Postnov. Proc. SPIE, Volume 6436, pp. 64360W (2007).