


Curriculum Vitae

Personal Information

	First Name:	Yegor
	Last Name:	Vekhov
	Sex:	Male
	Date of Birth:	December 21, 1981
	Place of Birth:	Kharkov, UKRAINE
	Citizenship:	UKRAINE
	Home Address:	ap. 128, 20a Geroev Truda Str., Kharkov 61168, UKRAINE
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Education

Master of Science, 2005 (Diploma with honors)

Qualification: Engineer-Researcher in Physics

Bachelor of Science, 2003 (Diploma with honors)

Qualification: Engineer in Material Science

National Technical University "Kharkov Polytechnical Institute".

www.kpi.kharkov.ua

Department for Physics and Technique

Major Subject: Physical material science



Work experience



November 2004 – Present

PhD Student, Junior Researcher

B.Verkin Institute for Low Temperature Physics and Engineering of the National Academy of Sciences of Ukraine, Kharkov, Ukraine

www.ilt.kharkov.ua

Responsibility: Working in low temperature experimental physics area. Studying kinetic and thermodynamic properties of solid helium-4 and solid isotopic mixtures ^3He - ^4He at 1 – 2 K temperature range and 25-50 bar pressure range. Working out the automation system for support of experimental investigations.

Scientific Interests

Area of my scientific interests is fundamental and applied low temperature physics. Most interesting for me at present is study of kinetic and thermodynamic properties of helium crystals under structure phase transition. Also I am interested in studying of phonons and vacancies role in solid helium. Effect of “supersolid” in solid helium is attracted my interest too.

Language skills

English	Good
Russian	Mother language
Ukrainian	Second mother language

Important Publications

- **Ye.O. Vekhov**, A.P. Birchenko, N.P. Mikhin, and E.Ya. Rudavskii. Fast Diffusion Process in Quenched hcp Dilute Solid ^3He - ^4He Mixture // J. of Low Temp. Phys., 158, 496 (2010)
- A.P. Birchenko, **Ye.O. Vekhov**, N.P. Mikhin, and K.A. Chishko. The Hysteresis of bcc-hcp Transition in Solid ^3He - ^4He Mixture // Low Temp. Phys. 35, 914 (2009)
- V. Grigor'ev, N. Mikhin, E. Rudavskii, and **Ye. Vekhov**. The bcc-hcp Phase Transition in ^4He : Comparison with the Theory of Homogeneous Nucleation // J. of Low Temp. Phys. 150, 47 (2008)
- V. Grigor'ev and **Ye. Vekhov**. The Universality of Energy Spectrum Parameters of Phonon and Vacancy Excitations in Solid Helium // J. of Low Temp. Phys. 149, 41 (2007)
- N. Mikhin, A. Polev, E. Rudavskii, and **Ye. Vekhov**. Effect of Crystal Quality on HCP-BCC Phase Transition in Solid He // J. of Low Temp. Phys. 148, 707 (2007)
- A. P. Birchenko, **Ye. O. Vekhov**, N. P. Mikhin, A. V. Polev, and E. Ya. Rudavskii. Kinetics of the bcc-hcp transition in ^4He off the melting curve // Low Temp. Phys. 32, 1118 (2006)
- **Ye. O. Vekhov**, N. P. Mikhin, A. V. Polev, and E. Ya. Rudavskii. Kinetic processes at the triple points on the melting curve of ^4He // Low Temp. Phys. 31, 1017 (2005)

Responsibilities

- Carrying out low temperature experiments with solid helium.
- Servicing and improving the experimental set-up.
- Software developing for automation system (Quick Basic, Turbo Pascal, Delphi, LabView...).

Significant Projects

2007-2010 - Scientific & Technology Center in Ukraine (Neutral and Charged Nanostructures in Liquid and Solid Helium)

2007-2009 - Civilian Research & Development Foundation (Phenomenon of Supersolidity of Helium-4)