Curriculum Vitae

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Academic and Professional details:

Education:

1995 - PhD, Karpov Institute of Physical Chemstry, Moscow, Russia

1988 - M.D. Moscow University of Steel and Alloys

Professional Experience:

01/03/2013 - current date: CYI, Research Associate. computational fluid dynamics

01/10/2007-01/03/2013: University of Cyprus, Cyprus. Research Associate. magnetohydrodynamics, computational fluid dynamics, evaporation losses from Cyprus dams

01/04/2004 - 01/10/2007 - Techical University Ilmenau, Germany. Research Associate. magnetohydrodynamics.

01/01/1998 - 31/12/2003 - Hahn-Meitmer Insitut, Berlin, Germany. Research Associate. statistical physics, thermodynamics.

Research Experience:

2004-now Computational fluid dynamics, magnetohydrodynamics

2001-2003 Statistical physics, astrophysics, long-range interaction systems

1998-2001 Statistical physics, microcanonical thermodynamics, lattice-gas models

1988-1997 Chemical engineering, material science, physical chemistry

Teaching Experience:

Technical thermodynamics seminars

Fluid dynamics seminars
PhD and Master Diploma supervisor

Honours and Achievments:

2007 Thueringer land government prize in research for the Lorentz-force anemometer (together with A.Thess,

C.Karcher, and Yu.B. Kolesnikov). Ilmenay, Germany

1994 Short term grant of International Science Foundation. Moscow, Russia.

1990 Honorary diploma of All-Union conference in physical chemistry and chemical physics among young scientists of USSR, Moscow, USSR

1985 Honorary diploma of All-Moscow competition in science among graduate students, Moscow, USSR

1981-1982 Honorary diplomas of Altay and Biysk regional school contests in mathematics, physics and chemistry among learners, Altay, Russian Federation, USSR

Other skills:

C, C++, parallel programming with MPI, Fortran-90

Molecular dynamics and Monte Carlo methods

Matlab, Mathematica, script languages

Lengthy symbolic algebraic calculations, scientific animation

Commercial engineering software, Fluent, Comsol Multiphysics (former Femlab)

Publications:

[1] E. V. Votyakov and S. C. Kassinos. Core of the magnetic obstacle. Journal of Turbulence, accepted, 2010.

[2] X Albets-Chico, H. Radhakrishnan, E. V. Votyakov, and Kassinos S. C. Effects of the consistency of the magnetic field on direct numerical simulations of liquid metal flow. Fusion Engineering and Design, accepted, 2010.

[3] E. V. Votyakov and S. C. Kassinos. On the analogy between streamlined magnetic and solid obstacles. Phys.

Fluids, 21:097102–11, 2009.

[4] E. V. Votyakov and S. C Kassinos. Core of the magnetic obstacle. In The sixth International Symposium on

Turbulence and Shear Flow Phenomena, Vol.II, pages 703–707, Seoul, Republic of Korea, 2009. Seoul National

University.

[5] E. V. Votyakov, S. C. Kassinos, and X. Albets-Chico. Analytic models of heterogenous magnetic fields for liquid metal flow simulations. Theoretical and Computational Fluid Dynamics, 23:571–578, 2009.

[6] D. G. E. Grigoriadis, S. C. Kassi

nos, and E. V. Votyakov. Immersed boundary method for the mhd flows of

liquid metals. J. Comput. Phys., 228(3):903–920, 2009.

[7] E. V. Votyakov, E. Zienicke, and Y. Kolesnikov. Constrained flow around a magnetic obstacle. J. Fluid Mech.,

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[8] A. Thess, E. V. Votyakov, Knaepen B., and Zikanov O. Theory of the Lorentz force flowmeter. New J. Phys.,

9:299, 2007.

[9] E. V. Votyakov, Y. Kolesnikov, O. Andreev, E. Zienicke, and A. Thess. Structure of the wake of a magnetic

obstacle. Phys. Rev. Lett., 98(14):144504, 2007.

[10] E. V. Votyakov and E. Zienicke. Numerical study of liquid metal flow in a rectangular duct under the influence

of a heterogenous magnetic field. Fluid Dynamics & Materials Processing, 3(2):97–113, 2007.

[11] A. Thess, E. V. Votyakov, and Y. Kolesnikov. Lorentz Force Velocimetry. Phys. Rev. Lett., 96:164501, 2006.

[12] E.V. Votyakov, E. Zienicke, and A. Thess. Liquid metal flow und

er inhomogenous magnetic field: Numerical

simulation. In J.C. He, editor, Asia-European Workshop on Electromagnetic Processing of Materials, pages

197–204, Shenyang, PR China, 2004. Northeastern University, Kluwer Academic Publishers.

[13] A. de Martino, E. V. Votyakov, and D. H. E. Gross. Asymmetric binaries and hierarchy of states in self-gravitating systems. Europhysics Letters, 62(1):14–20, 2003.

[14] A. de Martino, E. V. Votyakov, and D. H. E. Gross. The antonov problem for rotating systems. Nucl.Phys.B,

654(3):427–444, March 2003.

[15] E. V. Votyakov, A. de Martino, and D. H. E. Gross. Thermodynamics of rotating self-gravitating systems. Eur.

Phys. J. B, 15:593–603, 2002.

[16] E. V. Votyakov, H. I. Hidmi, A. de Martino, and D. H. E. Gross. Microcanonical mean-field thermodynamics

of self-gravitating and rotating systems. Phys. Rev. Lett., 89:031101, July 15 2002.

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Votyakov. Calibration functions in approximate simulations of

equilibrium adsorption characteristics. Russ. Chem. Bl., 51(9):1667–1674, Sep 2002.

[18] D. H. E. Gross. Microcanonical Thermodynamics, chapter On the origin of isolated critical points and critical

lines, pages 66–91. World Scientific, 2001.

[19] D. H. E. Gross. Microcanonical Thermodynamics, chapter Some general technical aspects of microcanonical Monte Carlo simulation on a lattice, pages 241–248. World Scientific, 2001.

[20] A. Vishnyakov, E. M. Piotrovskaya, E. N. Brodskaya, E. V. Votyakov, and Yu. K. Tovbin. Critical properties of lennard-jones fluids in narrow slit-shaped pores. Langmuir, 17(14):4451–4458, 2001.

[21] Yu. K. Tovbin and E. V. Votyakov. Characteristic features of phase diagrams describing condensation of adsorbate in narrow pores. Russ. Chem. Bl., 50(1):50–59, 2001.

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n on the properties of palladium membranes.

Russ. J. Phys. Chem.(Engl.Transl.), 75(4):640–646, 2001.

[23] E. V. Votyakov, N. F. Vasyutkin, M. M. Senyavin, and Yu. K. Tovbin. The effect of included hydrogen on the motion parameters of edge dislocations in palladium membranes. Protection of Metals, 37(1):53–61, 2001.

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of palladium. Phys. Solid State, 42(7):1158–1160, 2000.

[27] A. M. Vishnyakov, E. M. Piotrovskaya, Brodskaya E. N., E. V. Votyakov, and Yu. K. Tovbin. The critical properties of a Lennard-Jones fluid in narrow slit-like pores. Russ.

J. Phys. Chem.(Engl.Transl.), 74(2):162–

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[29] Yu. K. Tovbin and E. V. Votyakov. Analysis of thermal desorption spectra of heterogeneous surfaces. Langmuir, 15(18):6070–6082, 1999.

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ical

polymerization of acrylamide in the water-dmso solution. Kinetics and Catalysis, 39(5):673–678, May 1998.

[33] Yu. K. Tovbin and E. V.. Votyakov. Calculations of concentration dependences of chemical shifts for acrylamide in water-DMSO mixed solvents. Russ. Chem. Bull, 47, Jan 1998.

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lattice-gas model. Russ.J.Phys.Chem.(Engl.Transl.), 72(10):1885–1890, 1998.

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permeability. 2. role of composition and structure and model for

polymer glass matrixes. Russ.J.Phys.Chem,

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permeability. 1. equation for ideal systems and scale effect. Russ. J. Phys. Chem.(Engl.Transl.), 71(4):592–

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calculating adsorption characteristics. Russ. J. Phys. Chem.(Engl.Transl.), 71(3):469–474, 1997.

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Russ. J. Phys. Chem.(Engl.Transl.), 71(2):214–219, 1997.

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ption of oxigen-nitrogen mixtures on anatase. Russ. Chem. Bull, 45:786–793, 1996.

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two-dimensional phase diagrams of adatoms. Phys. Low-Dimens. Structures, 10/11:105–114, 1995.

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appearance of thermodesorption spectra. Russ. J. Phys. Chem.(Engl.Transl.), 67:128–133, 1993.

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spectra. Russ. J. Phys. Chem.(Engl.Transl.), 67:134–138, 1993.

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interacting molecules on heterogeneous surfaces. Poverkhnost'. Fizika. Khimiya. Mekhanika

. (in Russian),

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Chem.(Engl.Transl.), 66:848–856, 1992.

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s membrane properties on gas separation. In Int. Symp. on Membranes for Gas and Vapour Separation, Suzdal, pages 107–108, 1989.