

## *CURRICULUM VITAE*

### **VLADIMIR KUZOVKOV**

	<p><b>PERSONAL DETAILS</b></p> <p><b>SCIENTIFIC DEGREES: Ph.D., Dr Sc in Physics, Dr Habil. Phys</b></p> <p><b>DATE AND PLACE OF BIRTH: April 13, 1948, Moscow</b></p> <p><b>ADDRESS: Institute of Solid State Physics, University of Latvia, 8 Kengaraga Str., LV-1063 RIGA, Latvia</b></p> <p>PHONE: 371-7187-480 (office) FAX: +371-713-2778, +371-2-225039 E-MAIL: <a href="mailto:kuzovkov@latnet.lv">kuzovkov@latnet.lv</a></p> <p>MARITAL STATUS: Married, 1 child</p>
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#### MAIN RESEARCH INTERESTS:

Theoretical and Statistical Physics,  
Solid State Physics,  
Chemical Physics of Condensed Matter,  
Theory of Surface Catalytic Reactions, Large-scale computer simulations,  
Disordered systems – Anderson Localization

#### EDUCATION

1966-1971 B.S.+M.S. degrees: Dept. of Physics, Latvian State University, Riga, Latvia  
1974 PhD degree: University of Latvia, Advisor: Prof. B.Rolov, Title of Thesis: "Investigation of the crystalline lattice reconstruction in a vicinity of phase transition"  
1989 DSc (Soviet Doctor of Sciences) degree in Chemical Physics, Title of Thesis: "Many-particle effects in kinetics of birth and recombination of particles in condensed media"  
1992 Dr habil. in Physics, University of Latvia, Riga

#### ACADEMIC AND PROFESSIONAL EXPERIENCE

1974-1975 Assistant Professor in the Department of Theoretical Physics, Latvian State University  
1975-1990 Associate Professor, in the same Department  
1990-1996 Leading Research Scientist, Centre of Microelectronics, Riga  
1996-present time Leading Research Scientist at the Institute of Solid State Physics attached to the University of Latvia, Riga

## PROFESSIONAL ACTIVITIES, FELLOWSHIPS

- XI 1977- III 1978 Senior Visitor, Dept.of Theor. Physic, Technical University Dresden, Germany.  
Advisor: Prof. P.Ziesche
- I-II 1984 Senior Visitor, Dept. of Physics, Humboldt University of Berlin, Germany.  
Advisor: Prof. W.Ebeling
- XII 1988-X 1989 Fellow of the Alexander von Humboldt Foundation, Germany  
Advisor: Prof. A.Blumen, University of Bayreuth
- V 1990- VIII 1991 Fellow of the Alexander von Humboldt Foundation, Germany  
Advisor: Prof. A.Blumen, University of Bayreuth
- V-IX 1993 Fellow of the Alexander von Humboldt Foundation, Germany  
Advisor: Prof. W.von Niessen, University of Braunschweig
- VII-XI 1994 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Advisor: Prof. W.von Niessen, University of Braunschweig
- IV 1995 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Advisor: Prof. R.Mahnke, University of Rostock
- VII-XI 1995 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- XII 1996, XI 1997 Senior Visitor, University of Freiburg, Germany.  
Advisor: Prof. A.Blumen, University of Freiburg
- VI-VIII 1998 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Advisor: Prof. A.Blumen, University of Freiburg
- IV-VI 1999 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- VI-VIII 2000 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- IX-XI 2001 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- VIII-X 2002 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- II 2003 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. G. Borstel, University of Osnabrueck
- VIII-X 2003 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- XI 2003 Euroatom Mobility , Brussel  
Advisor: Prof. H. Zohm, Max-Planck-Institut fuer Plasmaphysik, Garching
- IV-VI 2004 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig
- VII-XI 2005 Fellow of the Deutsche Forschungsgemeinschaft, Germany  
Avisor: Prof. W.von Niessen, University of Braunschweig

## AWARDS

- 1992 International Science Foundation (ISF) grant  
1994 Two-year ISF research grant  
1994 NATO research grant  
1996-1997 Volkswagen research grant (Germany)

## TEACHING EXPERIENCE

I worked for 2 years as assistant Professor and 15 years as associate Professor at the University of Latvia. During this period I lectured at both undergraduate and graduate levels giving courses on "Quantum Mechanics", "Statistical Physics", "Theoretical Physics", "Introduction to Phase Transitions and Critical Phenomena", "Introduction to Modern Solid State Physics", "Far from Equilibrium", "Quantum Theory of Many-Body Systems", etc.

I have supervised some B.S., M.S. and Ph D theses.

## PUBLICATIONS

books:

- *"The statistics and kinetics of phase transitions in solids"* (B.Rolov, V.Ivin, V.Kuzovkov; Zinatne Publishing House: Riga, 1979, 180p.);
- *"Models of processes in wide-gap solids with defects"* (L.Kantorovich, E.Kotomin, V.Kuzovkov, I.Tale, A.Shluger, Yu.Zakis; Zinatne Publishing House: Riga, 1991, 320p.);
- *"Modern aspects of diffusion-controlled reactions: Cooperative phenomena in bimolecular processes"*, vol.34 in *Comprehensive Chemical Kinetics* (E.Kotomin, V.Kuzovkov; Elsevier: Amsterdam, 1996, 616p.).
- V.N.Kuzovkov Aggregation and structure formation in reaction-diffusion processes in chemical systems. –Chapter in: *Aggregation phenomena in complex systems*, Eds. J.Schmelzer, G.Roepke, R.Mahnke (Wiley-VCH, Weinheim, 1999, p.205-239).

review articles:

- Kuzovkov V.N., Kotomin E.A. *Kinetics of bimolecular reactions in condensed media*. - **Rep. on Progr. in Physics**, 1988, 51, No.12, p.1479-1524.
- Kotomin E.A., Kuzovkov V.A. *Phenomenological theory of the recombination and accumulation kinetics of radiation defects in ionic solids*. - **Rep. on Progr. in Physics**, 1992, 55, p.2079-2202.

papers: more than 150 papers.

## MAIN PAPERS

1. Schnörer H., Kuzovkov V.N. and Blumen A. *Segregation in annihilation reactions without diffusion: Analysis of correlations*. **Phys.Rev.Lett.** 1989, 63, p.805-808.
2. Kuzovkov V.N. and Kotomin E.A. *Pair and triple correlations in the  $A+B \rightarrow B$  diffusion-controlled reaction*. **Phys.Rev.Lett.** 1994, 72, p.2105-2108.
3. Kortlüke O., Kuzovkov V.N. and von Niessen W. *Oscillation phenomena leading to chaos in a stochastic surface reaction model*. **Phys.Rev.Lett.** 1998, 81, p.2164-2167.
4. Kuzovkov V.N., Kortlüke O. and von Niessen W. *Nucleation and island growth kinetics on reconstructing surfaces*. **Phys.Rev.Lett.** 1999, 83, p.1636-1639.
5. Kortlüke O., Kuzovkov V.N. and von Niessen W. *Global synchronisation via homogeneous nucleation in oscillating surface reactions*. **Phys.Rev.Lett.** 1999, 83, p.3089-3092.