

## Curriculum Vitae

### Evgeny B. Stukalin

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#### OBJECTIVE:

Postdoctoral research position

#### PERSONAL

Date of birth: March 17, 1977  
Citizenship: Russia

#### EDUCATION

**M.S. in Chemistry**, Moscow State University, June 1999.

**Ph.D. in Chemistry**, Moscow State University, February 2003.

Thesis title: "*Thermodynamic study of solid solvates and solubility of the fullerenes C<sub>60</sub> and C<sub>70</sub> in aromatic solvents and water*". Adviser: Professor M.V. Korobov.

A systematic study of solid solvates of C<sub>60</sub> and C<sub>70</sub> with aromatic solvents was performed. Over 15 new compounds of the fullerenes were found and isolated. Structures, compositions and thermodynamic stability of these compounds were determined. The atom-atom potential method has been used to describe both the crystal structures and the thermodynamics of formation of the solid solvates. Polarizable continuum model based on effective Hamiltonians along with the scaled particle theory were employed to describe the thermodynamics of solvation of the fullerenes. The solvation and solution properties of C<sub>60</sub> and C<sub>70</sub> were compared with the model developed. The estimations of solvation properties were further extended to higher fullerenes. «C<sub>60</sub> - water» system was studied by differential scanning calorimetry. The evidence of the interaction of strongly hydrophobic C<sub>60</sub> with water was found. The composition of the «hydrate» (clatrate-like complex) was determined.

- 1994-1999: Department of Chemistry, Moscow State University, first class diploma.
- 1999-2002: Postgraduate School, Department of Chemistry, Moscow State University.

#### POSITIONS

- 2002-2003: *Junior research assistant*, Laboratory of Chemical Thermodynamics, Department of Chemistry, Moscow State University.
- July-August 2001: *Visiting scientist*, Department of Chemistry, Rice University.
- October 2003 – present: *Postdoctoral research associate*, research group of Prof. A.B. Kolomeisky, Department of Chemistry, Rice University.  
Polymerization/Depolymerization processes in microtubules and actin filaments.

## HONORS and AWARDS

- The Robert A. Welch Foundation postdoctoral fellowship (2003, 2004).
- International Soros Science Education Program (ISSEP) Scholarship for outstanding graduate students (2000, 2001, 2002).
- RFBR (Russian Foundation for Basic Research) young scientist grant (2001, 2002)
- Russian President's graduate scholarship (2001).
- ISSEP Scholarship for outstanding undergraduate students (1998).

## TEACHING EXPERIENCE

- Supervised undergraduate students in independent research projects in Physical and Inorganic Chemistry

## RESEARCH INTERESTS and EXPERIENCE

**Theoretical and Experimental Physical Chemistry. Theoretical Biophysics. Solvation thermodynamics. Chemical thermodynamics.**

### Specifically:

- Stochastic models of complex systems.
- Kinetics of non-equilibrium processes.
- Assembly dynamics of rigid biopolymers.
- Theory of biological motors.
- Stability and structures of molecular complexes of fullerenes.
- Thermodynamic properties of solutions of nonelectrolytes.
- Modeling of solvation phenomena.

## PERSONAL REFERENCES

### **Professor Allan Smith**

Drexel University,  
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### **Professor Anatoly B. Kolomeisky**

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### **Professor Mikhail V. Korobov**

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### **Professor Boris V. Romanovsky**

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