

Curriculum Vitae



Dimitar Ivanov Dimitrov

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Date of birth: 8.10.1972

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Married, 2 children.

Work Experience, education and training:

1986-1989 – High school in Parvomay, Bulgaria.

1990-1995 – Magister program of „Mathematics and informatics“ the University of Plovdiv „Paisii hilendarski“

1996 – Military obligations

1997-2000 – PhD student in the University of Food Technologies, Plovdiv.

Teaches Physical chemistry from 1998 in UFT. Assistant in the department from 2001.

2006-2007 - Postdoc in Germany, „Johannes Gutenberg“ University of Mainz, supported by Max Planck Institute of Polymers. Short visits in Mainz inn 2008 and 2009.

2009 - Assoc. Prof of Physical chemistry

Languages: Bulgarian, English

Selected publications:

- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Dieter W. Heermann, Structure of Polymer Brushes in Cylindrical Tubes: A Molecular Dynamics Simulation, *Macromolecular Theory and Simulations*, 2006, 15, 573–583.
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Polymer brushes in cylindrical pores: Simulation versus scaling theory, *THE JOURNAL OF CHEMICAL PHYSICS*, 2006, 125, 034905.

- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Polymer Brushes on Flat and Curved Substrates: Scaling Concepts and Computer Simulations, *Macromolecular Symposium*, 2007, 252, 47–57.
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Polymer brushes in solvents of variable quality: Molecular dynamics simulations using explicit solvent, *THE JOURNAL OF CHEMICAL PHYSICS*, 2007, 127, 084905.
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Molecular Dynamics Simulations of Capillary Rise Experiments in Nanotubes Coated with Polymer Brushes, *Langmuir*, 2008, 24, 1232.
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Capillary Rise in Nanotubes Coated with Polymer Brushes, in *Annals of the New York Academy of Sciences*, Forthcoming on Feb 2009, ISBN 1-57331-712-8.
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Capillary Rise in Nanopores: Molecular Dynamics Evidence for the Lucas-Washburn Equation, *PHYSICAL REVIEW LETTERS*, 99, 054501 (2007).
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Forced Imbibition - a Tool for Determining Laplace Pressure, Drag Force and Slip Length in Capillary Filling Experiments, *Physical Chemistry Chemical Physics*, 10, 1867 (2008).
- Andrey Milchev, Dimitar I. Dimitrov, Kurt Binder, Excess Free Energy of Nanoparticles in a Polymer Brush, *Polymer*, Vol. 49, Issue 17, 3611-3618 (2008).
- Dimitar I. Dimitrov, Andrey Milchev, Kurt Binder, Local Viscosity in the Vicinity of a Wall Coated by Polymer Brush from Green–Kubo relations, *Macromolecular Theory and Simulations*, Vol. 17, Issue 6, 259 – 261 (2008).
- Dimitar I. Dimitrov, Klushin, L. I., Andrey Milchev, Kurt Binder, Flow and transport in brush-coated capillaries: A molecular dynamics simulation, *Physics of Fluids*, Volume 20, Issue 9, 092102-8 (2008).
- Febbo, M.; Milchev, A.; Rostiasvili, V.; Dimitrov, D.; Vilgis, T. A. ,Dynamics of a stretched nonlinear polymer chain, *Journal of Chemical Physics*, Volume 129, Issue 15, 154908-13 (2008).
- S. Chibbaro, L. Biferale, F. Diotallevi, S. Succi, K. Binder, D. Dimitrov, A. Milchev, S. Girardo and D. Pisignano, Evidence of thin-film precursors formation in hydrokinetic and atomistic simulations of nano-channel capillary filling, *Europhysics Letters*, 84 (2008) 44003.
- D. I. Dimitrov, A. Milchev, Kurt Binder, Leonid I. Klushin, and Alexander M. Skvortsov, Universal properties of a single polymer chain in slit: Scaling versus molecular dynamics simulations, *THE JOURNAL OF CHEMICAL PHYSICS*, 128, 234902 (2008).