

**Biographical Sketch for
DMITRY KOPELEVICH
Department of Chemical Engineering
University of Florida**

Professional Preparation

B.S., Diploma with Honor, Applied Mathematics,
Kuban State University, Krasnodar, Russia, 1996.

Joint Ph.D. in Chemical Engineering and Mathematics,
University of Notre Dame, 2002.

Postdoctoral Training
Princeton University, Department of Chemical Engineering,
2002-2003.

Appointments

Assistant Professor, 2003 – present
University of Florida, Chemical Engineering Department

Awards and Honors

NSF CAREER Award, 2007.

Five Publications Most Closely Related to the Proposed Project

1. A. Gupta, A. Chauhan, and D. I. Kopelevich, “Molecular transport across fluid interfaces: Coupling between solute dynamics and interface fluctuations”, *Phys. Rev. E*, *in press* (2008).
2. A. Gupta, A. Chauhan, and D. I. Kopelevich, “Molecular Modeling of Surfactant Covered Oil-Water Interfaces: Dynamics, Microstructure, and Barrier for Mass Transport”, *J. Chem. Phys.*, **128**, 234709 (2008).
3. G. Mohan and D. I. Kopelevich, “A Multi-Scale Model for Kinetics of Formation and Disintegration of Spherical Micelles”, *J. Chem. Phys.* **128**, 044905 (2008).
4. E. R. May, A. Narang, D. I. Kopelevich, “Role of molecular tilt in thermal fluctuations of lipid membranes”, *Phys. Rev. E* **76**, 021913 (2007).
5. D. I. Kopelevich, A. Z. Panagiotopoulos and I. G. Kevrekidis, “Coarse-Grained Kinetic Computations for Rare Events: Application to Micelle Formation”, *J. Chem. Phys.* **122**, 044908 (2005).

Five Other Significant Publications

6. C.-Y. Chen and D. I. Kopelevich, “Phonon interactions in zeolites mediated by anharmonicity and adsorbed molecules”, *Mol. Simulat.*, **34**, 155–167 (2008).
7. D. I. Kopelevich, A. Z. Panagiotopoulos and I. G. Kevrekidis, “Coarse Grained Computations for a Micellar System”, *J. Chem. Phys.* **122**, 044907 (2005).
8. D. I. Kopelevich and H.-C. Chang, “Non-thermal Transport of Small Sorbates in Zeolites: Chaotic Dynamics and Long Jumps”, *J. Chem. Phys.*, **119**, 4573-4581 (2003).

9. D. I. Kopelevich and H.-C. Chang, "Does Lattice Vibration Drive Diffusion in Zeolites?", *J. Chem. Phys.* **114**, 3776-3789 (2001).
10. H.-C. Chang, E. A. Demekhin, and D. I. Kopelevich, "Stability of a Solitary Pulse Against Wave Packet Disturbances in an Active Medium", *Phys. Rev. Lett.* **75**, 1747-1750 (1995).

Outreach Activities

- Mentor for University Scholars Program which provides research opportunities for undergraduates at the University of Florida.

Collaborators and Other Affiliations

(a) Collaborators

Dr. G. Bitton, University of Florida
Dr. J.-C. Bonzongo, University of Florida
Dr. J. Butler, University of Florida
Dr. A. Chauhan, University of Florida
Dr. S. Graham, Georgia Institute of Technology
Dr. S. Nair, Georgia Institute of Technology
Dr. A. Narang, University of Florida

(b) Graduate Advisor

Dr. H.-C. Chang, University of Notre Dame

Postdoctoral Advisors

Dr. I. G. Kevrekidis, Princeton University
Dr. A. Z. Panagiotopoulos, Princeton University

(c) Graduate Students

C. Y. Chen (PhD, 2008), A. Gupta (PhD, 2008t), G. Mohan (PhD, 2008),
Y.-M. Ban (PhD, current), Y.-N. Ahn (PhD, current), B. James (MS).