

Biographical Sketch (2 pages)

Jerome P. DELHOMMELLE

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Professional Preparation

<i>Institution</i>	<i>Major / Area</i>	<i>Degree & Year</i>
Australian National University, Australia	Theoretical Chemistry	Postdoc: 2000-2001
University of Paris XI-Orsay, France	Chemical Physics	PhD: 2000
University of Paris XI-Orsay, France	Chemical Physics	M.S.: 1995
University of Paris XI-Orsay, France	Chemical Physics	B.S.: 1994

Professional experience

Appointments

2008-now	Assistant Professor	University of North Dakota
2005-2008	Assistant Professor	University of South Carolina
2004-2005	Sr. Research Associate	Vanderbilt University
2001-2004	Assistant Professor	University Nancy 1 (France)

Honors, Awards and Other Significant Activities

National Science Foundation CAREER Award	2011
New Faculty Scholar Award, University of North Dakota	2009
US Editor, Molecular Simulation (Taylor and Francis)	2006-present
Visiting Fellow, Australian National University	2003
Ecole Normale Supérieure (Cachan, France)	1997

Publications

Five Significant Publications (64 overall)

1. C. Desgranges and J. Delhommelle, Role of liquid polymorphism during the crystallization of Silicon. *J. Am. Chem. Soc.* **133**, 2872 (2011).
2. C. Desgranges and J. Delhommelle, Molecular Insight into the Pathway to Crystallization of Aluminum. *J. Am. Chem. Soc.* **129**, 7012 (2007).
3. C. Desgranges and J. Delhommelle, Controlling Polymorph Selection during the Crystallization of an Atomic Fluid. *Phys. Rev. Lett.* **98**, 235502 (2007).
4. C. Desgranges and J. Delhommelle, Insights into the Molecular Mechanism underlying Polymorph Selection. *J. Am. Chem. Soc.* **128**, 15104 (2006).
5. C. Desgranges and J. Delhommelle, Molecular Mechanism for the Cross-Nucleation between Polymorphs. *J. Am. Chem. Soc.* **128**, 10368 (2006).

Five Other Publications relevant to the project

1. K. D. Watson, S. E. Tatsinkou Nguelo, C. Desgranges and J. Delhommelle, Crystal nucleation and growth in Pd-Ni alloys: a molecular simulation study. *Cryst. Eng.*

Comm. **13**, 1132 (2011).

2. C. Desgranges, A. Magness, J. M. Hicks and J. Delhommelle, Phase Equilibria of Polyaromatic Hydrocarbons by Hybrid Monte Carlo Simulations. *Mol. Phys.* **108**, 151 (2010).

3. T. Aleksandrov, C. Desgranges and J. Delhommelle, Vapor-liquid equilibria of copper using hybrid Monte Carlo Wang-Landau simulations. *Fluid Phase Equil.* **287**, 79 (2010).

4. K. N. Ngale, C. Desgranges and J. Delhommelle, Nucleation and growth of C60 nanoparticles from the supersaturated vapor and the undercooled liquid: A molecular simulation study. *J. Chem. Phys.* **131**, 244515 (2009).

5. J.-M. Leyssale, J. Delhommelle and C. Millot, Reorganization and growth of metastable α -N₂ critical nuclei in stable β -N₂ crystallites. *J. Am. Chem. Soc.* **126**, 12286 (2004).

Synergistic Activities

- Active participant in the NSF-REU program at UND (3 students hosted since 2008, 1 female).
- Outreach activity through the NATURE program (3 Native American high school students hosted since 2008, 2 female).
- Discussion Leader for the 'Crystallization and more exotic Ordering' session, 2011 Gordon Conference on Chemistry and Physics of Liquids.

Collaborators & Other Affiliations

Collaborators

Prof. Peter T. Cummings, Vanderbilt University

Prof. Denis J. Evans, Australian National University (Australia)

Dr. Janka Petravic, University of Sydney (Australia)

Prof. Lian Yu, University of Wisconsin-Madison

Graduate and Postdoctoral Advisors

PhD Advisor Prof. Alain H. Fuchs, University of Paris XI-Orsay (France)

Postdoc Advisor Prof. Denis J. Evans, Australian National University (Australia)

Thesis Advisor and Postgraduate-Scholar Sponsor

Graduate Students

Total: 7

Jean-Marc Leyssale, University Nancy 1 (France), PhD in 2004

Caroline Desgranges, University of South Carolina, PhD in 2008

Andy Magness, University of North Dakota, MS in 2010

Tsvetan Aleksandrov, University of North Dakota (current)

Jason Hicks, University of North Dakota (current)

Kenneth Ndumbe Ngale, University of North Dakota (current)

Serges Eric Tatsinkou Nguelo, University of North Dakota (current)