

CONTACT  
INFORMATION11000 Weyburn Dr, Apt A-313  
Los Angeles, CA, 90024Email: bzkarimi@g.ucla.edu  
Phone: (+1) 612-978-9658RESEARCH  
INTEREST

- Theoretical Chemistry
  - Electronic Structure Theory
  - Density Functional Theory (DFT)
  - Quantum Embedding
    - DFT-in-DFT
    - WFT-in-DFT
- Applications
  - Enzymes
  - Catalysis

POSTER  
PRESENTATIONS  
& CONFERENCES

- Density matrix embedding theory: multi-level modeling of complex systems
- Nanoporous Materials Genome Center All-hands Meeting, Oct. 2016, Univ. of Minnesota
- Institute for Pure and Applied Mathematics, Aug. 2016, UCLA
- International Society of Theoretical Chemical Physics, July 2016, North Dakota

JOURNAL  
PUBLICATIONS

- Fakhraee, M; **Zandkarimi, B**; Salari, H; Gholami, M. "Hydroxyl-Functionalized 1-(2-Hydroxyethyl)-3-methyl Imidazolium Ionic Liquids: Thermodynamic and Structural Properties using Molecular Dynamics Simulations and ab Initio Calculations", *J. Phys. Chem. B*, **2014**, 118 (49), pp 14410–14428 DOI: 10.1021/jp5083714

## EDUCATION

- M.Sc. in Chemistry  
Univ. of Minnesota,  
Twin Cities  
Sept. 2015 – June 2017  
(expected)  
Thesis: "Density matrix embedding theory:  
multi-level modeling of complex systems"
  - GPA: 3.92/4.0
- B.Sc. in Chemical Engineering  
Sharif Univ. of Technology  
Sept. 2010 – July 2015
  - GPA: 18.32/20
- B.Sc. in Chemistry  
Sharif Univ. of Technology  
Jan. 2012 – July 2015
  - GPA: 18.98/20

## SKILLS

## Programming Languages:

- Fortran, Python

## Computational Software:

- VMD
- Gaussian/Gauss View
- Molpro
- PySCF, QC-DMET (Garnet Chan's group, Princeton University)

TEACHING EXPERIENCE Teaching Assistant for General Chemistry Lab I Sept. 2015 – Present

- Fall 2015 Overall Evaluation: 7.51/10
- Spring 2016 Overall Evaluation: 9.08/10

CODES WRITTEN FROM SCRATCH

- Restricted Hartree-Fock and Mulliken Population Analysis
- Configuration Interaction Singles and Doubles (CISD) and CISD density matrix
- Optimized Effective Potential (OEP)
- Broyden–Fletcher–Goldfarb–Shanno (BFGS) Algorithm

HONORS & AWARDS

- Recipient of the **First-year Graduate Student Fellowship**, Chemistry Department, Univ. of Minnesota, 2015-2016
- Ranked **1st** based on GPA among students of Department of Chemical Engineering, Sharif Univ. of Technology, class of 2015
- Ranked **1st** based on GPA among students of Department of Chemistry, Sharif Univ. of Technology, class of 2015
- Awarded as **Privileged Student** in the *10th* Sharif Stars Ceremony, Sharif Univ. of Technology, 2013
- **Gold** medalist in the *6th* International Chemistry Olympiad for University Students, Isfahan, Iran, 2013
- Recipient of the **Excellence Fellowship for Undergraduate Studies**, National Elites Foundation, 2010-2015
- Ranked **22nd** in the National University Entrance Examination among **300,000** students, 2010
- **Bronze** Standard in **Galois** mathematics examination for grade 10 students, University of Waterloo, Canada 2007

Chemistry Proficiency Tests	Ranking among first-year graduate students	Grade	Univ. of Minnesota, Aug. 2015
Physical Chemistry	1 / 51	A	
Inorganic Chemistry	1 / 44	A	
Organic Chemistry	2 / 50	A	
Analytical Chemistry	2 / 45	A	

TEST SCORES	TOEFL 06/2016				
	Reading	Listening	Speaking	Writing	Total
	26	29	23	29	107
	GRE General 10/2016			GRE Subject (chemistry) 04/2014	
	Verbal	Quantitative	Writing	Scaled score	Percentile
	159 (82%)	168 (95%)	4.0 (59%)	920/990	99%

LANGUAGES

- Persian (Native)
- English (Professional working proficiency)
- Spanish (Beginner)