# Curriculum Vitae

#### Mohammad Ali Namdarghanbari

#### **EDUCATION**

Ph.D.	Biochemistry	University of Wisconsin-Milwaukee	2014
Dissert	ation:	"Cellular Zinc Trafficking: The Zinc Proteome an Reactions with Cadmium"	nd Its
M.S.	Physical Chemistry	Shiraz University	2001
Thesis:		"Kinetic Parameters for Hydrogen Abstraction in the Reactions of " $CH_3 + SH_2$ " and " $C_2H_5S + SH$ " From Ab Initio Calculations"	
B.S.	Applied Chemistry	University of Isfahan	1998

#### **PROFESSIONAL EXPERIENCE**

<u>Principal Chemist</u> Research and Development PARSIZ GROUP Milwaukee, Wisconsin

Research and Teaching AssistantSeptember 2006 to December 2014Research Project: Metal binding properties of Metallothionein and the Proteome<br/>and Toxic Metal Proteomics.Courses Taught: Chem. 101, 102, 103, 221 Labs. & discussions and tutoring for all<br/>Chemistry LevelsUNIVERSITY OF WISCONSIN-MILWAUKEE<br/>Milwaukee, WisconsinMilwaukee, Wisconsin

Research and Teaching AssistantSeptember 2005 to August 2006Research Project: "Theoretical actinide chemistry and study of actinidecomplexation in zeolites"Suggested a multistep mechanism of oxygen exchange reaction in uranyl hydroxideand computed thermodynamic parameters for this mechanism using Density

January 2015 to December 2015

#### PROFESSIONAL EXPERIENCE Continued

Functional Theory (DFT) method in gas and condensed-matter states. (Published in JACS, 2008) Courses taught: Chemistry of Main Group Elements and Introduction to Physical Chemistry Labs. UNIVERSITY OF MANITOBA Winnipeg, Manitoba Chemical Lab Supervisor January 2004 to August 2005

Preparation of analysis methods for new products using USP, BP or internal methods and conducting analysis for new products licensed under foreign companies

Deciding to accept or deny raw materials, in-process and finished products Determining the quantity of effective drug substances needed to issue batch sheets for using in the production section Supervising analysis of raw materials and finished products Reviewing analysis sheets for raw materials, in-process and finished products. EXIR PHARMACEUTICAL COMPNAY

Boroujerd, Iran

Researcher and Lab Analyst

October 2001 to March 2002 & June 2002 to December 2003

Conducting cation-exchange experiments and analysis

Determining thermodynamic quantities of ion exchange reactions in zeolites in order to find optimized temperature and the best zeolite for the nuclear wastewater treatment. Iranian Atomic Energy Organization Tehran, Iran

Research and Teaching AssistantSeptember 1998 to July 2001Research Projects: Determination of kinetic parameters of Hydrogen AbstractionReactions in sulfur compounds by Ab Initio calculations.Writing a program in FORTRAN to calculate kinetic parameters and tunnelingeffect on the kinetics of Trimolecular, Bimolecular, and unimolecular HydrogenAbstraction ReactionsCourses taught: Physical Chemistry I& II, and General Chemistry II Labs.SHIRAZ UNIVERSITY, Shiraz, Iran

# PEER REVIEWED JOURNAL PAPERS

• S. Hossein Mousavipour, Mohammad A. Namdar-Ghanbari, and Lila Sadeghian "A Theoretical Study on the Kinetics of Hydrogen Abstraction Reactions of Methyl or Hydroxyl Radicals with Hydrogen Sulfide", J. Phys. Chem. A. 107 (2003), 3752-3758.

#### PEER REVIEWED JOURNAL PAPERS Continued

- Namdarghanbari MA, MeeusenJ, Bachowski G, Giebel N, Johnson J, Petering DH. "Reaction of the zinc sensor FluoZin-3 with Zn<sub>7</sub>-metallothionein: Inquiry into the existence of a proposed weak binding site", J Inorg. Biochem. 104 (2010), 224– 231.
- Namdarghanbari M, Wobig W, Krezoski S, Tabatabai NM, Petering DH. "Mammalian metallothionein in toxicology, cancer, and cancer chemotherapy", J Biol.Inorg. Chem. 16 (2011), 1087-101.
- Namdarghanbari MA., Bertling J., Krezoski S., and Petering DH. "Toxic Metal Proteomics: Reaction of the Zinc Proteome with Cd<sup>2+</sup>",J Inorg. Biochem. 136(2014)115-121.
- Namdarghanbari MA. and Petering DH. "Cellular Zn<sup>2+</sup> Trafficking: Proteomic Zn<sup>2+</sup> Binding Sites Detected through Adduct Formation with Zincon", in prepration.

# **CONFERENCE PAPERS**

# March 2001

S. H. Mousavipour and M. A. Namdar-Ghanbari, Hydrogen Abstraction from Hydrogen Sulfide by Methyl Radicals, 4th Physical Chemistry Conference, Kish, Iran.

# August 2007

G. Schreckenbach, M. A. Namdarghanbari, G. A. Shamov, N. B. Svenda "Uranyl Hydroxide", poster presentation at the "16th Canadian Symposium on Theoretical Chemistry (CSTC2007)", St. John's, Newfoundland, Canada.

# May 2009

Meeusen, J.; Namdarghanbari, M. A.; Giebel, N.; Petering, D.H. Dual native and non-native Zn(II) binding properties of metallothionein. 2<sup>nd</sup>Canadian Conference of Biological Inorganic Chemistry, Canada.

# AWARDS

- Chemistry Department Graduate Student Award University of Manitoba, Chemistry Department, 2005
- Chancellor's Graduate Student Award University of Wisconsin-Milwaukee, 2006, 2008, 2010, 2012

#### **REFERENCES**

David H. Petering, Distinguished Professor Chemistry & Biochemistry Department University of Wisconsin-Milwaukee, Milwaukee, WI 53211 (414) 229-5853, <u>petering@uwm.edu</u>

Arsenio Pacheco, Professor Chemistry & Biochemistry Department University of Wisconsin-Milwaukee, Milwaukee, WI 53211 (414) 229-4413, <u>apacheco@uwm.edu</u>

H. Georg Schreckenbach, ProfessorChemistry & Biochemistry DepartmentUniversity of Manitoba, Winnipeg, MB R3T 2N2(204) 474-6261, schrecke@cc.umanitoba.ca

S. Hossein Mousavipour, Professor Department of Chemistry Shiraz University, Shiraz, Fars, Iran +98 (713) 613-7159, mousavi@chem.susc.ac.ir

Ali Heidar Pakiari, Professor Department of Chemistry Shiraz University, Shiraz, Fars, Iran +98 (713) 613-7165, pakiari@chem.susc.ac.ir