Dr. Ana Magdalena Q. Vande Linde

Professor of Chemistry
Chair, Department of Chemistry and Physics
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Education

- Post-Doctoral Fellow, 1988 - 1989
  Stroke Research Center, Department of Neurology,
  Henry Ford Hospital, Detroit, MI
- Ph.D. Analytical Chemistry
  Wayne State University, Detroit, MI, 1988
  Dissertation: Determination of Self Exchange Electron Rate Constants and Activation Parameters for Macrocyclic Polyaminothiaether and Polythiaether Complexes of Cu(II)(I) Using NMR Spectroscopy.
  Adviser: Dr. David Rorabacher
- M.S. Chemistry
  De La Salle University, Manila, Philippines, 1983
- M.S. Teaching - Physical Science
  De La Salle University, Manila, Philippines, 1980
- B.S. Chemistry
  University of San Agustin, Iloilo City, Philippines, 1977

Work Experience

- Department Chair, March 2017 – Present
  Department of Chemistry and Physics
  University of Wisconsin-Stout, Menomonie, WI
- Professor of Chemistry, 2015 – Present
  Department of Chemistry and Physics
  University of Wisconsin-Stout, Menomonie, WI
- Professor, 2004 – 2015
  Department of Chemistry, University of Wisconsin-Stout, Menomonie, WI
- Associate Professor, 1998 – 2004
  Department of Chemistry, University of Wisconsin-Stout, Menomonie, WI
- Assistant Professor, 1993 – 1998
  Department of Chemistry, University of Wisconsin-Stout, Menomonie, WI
- Junior Staff Investigator, 1989 – 1993
  Stroke Research Center, Department of Neurology
  Henry Ford Hospital, Detroit, MI

- Adjunct Associate Professor, 1992 – 1993
  Chemistry Department, Madonna University, Livonia, MI
- Graduate Teaching and Research Assistant, 1983 – 1988
  Department of Chemistry, Wayne State University, Detroit, MI
- Assistant Professor, 1981 – 1983
  Department of Chemistry, De La Salle University, Manila, Philippines
- College Instructor, 1980 – 1981
  Department of Chemistry, De La Salle University, Manila, Philippines
- College Instructor, 1977 - 1978
  Department of Chemistry, Colegio de San Agustin, Bacolod City, Philippines

Notable Accomplishments as Department Chair

- Facilitated the acquisition of funds for the following projects/equipment:
  - Oscilloscopes, Generators, Meters for Physics Labs, $24,000, Lab Mod Project Fund, A. Vande Linde-requestor, 2019-2020
  - Furnace and 3D Printer, $15,938, ME Differential Tuition Fund and College Reserve, M. Ray-requestor, 2019-2020
  - Single Photon Counter, $8,557, Lab Mod Project Fund, T. Zimmerman-requestor, 2019-2020
  - FTIR Spectrometer, $21,598, Lab Mod Project, Fund, D. Kadnikov-requestor, S2018
  - Balances, Desiccators, Lab Pro Mini Interface, and Other Small Equipment, $32,624, Lab Mod Project Fund, A. Vande Linde-requestor, S2018
  - Monitor with Air Media and Moving Camera for SA 347/367, $20,000, Lab Mod Project Fund, A. Vande Linde-requestor, S2018
  - Chemistry Prep Area Update, $17,395, Lab Mod Project Fund, R. Hoeft-requestor, 2018-2019
  - Autosampler for the NMR, $33,605, Lab Mod Project Fund, D. Kadnikov-requestor, 2018-2019
  - Analytical Balances for the Organic Chem Lab, $11,300, Lab Mod Project Fund, D. Kadnikov-requestor, 2018-2019
  - Monitors with Air Media and White Boards in the Chemistry and Physics Tutor Centers, $12,279, Classroom Modernization Project Fund, A. Vande Linde-requestor, Spring 2017
  - Periodic Tables in Chemistry and Physics Teaching Spaces, $6,400, Classroom Modernization Project Fund, A. Vande Linde-requestor, spring 2017
  - Renovation of Organic Chemistry Lab, $5,500, Lab Mod Project Fund, D. Kadnikov-requestor, spring 2017
- Approval of the Environmental Health Minor proposal
- Approval of the GEOL course prefix for geology courses

- Organization of the: Chemistry Tutor Center, SW 335, 347 and 367
- Approvals of the: Open Lab Policies, Five-Year DCP Strategic Plan, Instrument Usage Fees and Instrument Usage Policies
- Updating of outdated Physics and Chemistry courses

Peer Reviewed Publications

- B.E. Johnson and B. Upadhyaya (Faculty Advisors: A.M.Q. Vande Linde and K. Carlson): Models of Cadmium Absorption by Italian Parsley, *Proceedings of the National Conference on Undergraduate Research,* 2012, 613-619. http://www.ncurproceedings.org/ojs/index.php/NCUR2012/article/view/168/257
- K.M. Hurd, M. Chopp, A.M.Q. Vande Linde, Y. Li, T. Spencer: The Effects of Moderate Hyperglycemia on the Temporal Profile of Brain Tissue Intracellular pH and [Mg^{2+}] After Global Cerebral Ischemia in Rats. *J Neurol Science*, 1995, 129, 90-96.
- G.H. Leggett, B.C. Dunn, A.M.Q. Vande Linde, L.A. Ochrymowycz and D.B. Rorabacher: Electron-Transfer Kinetics of Copper (II)/(I) Macrocyclic Tetrathiaether Complexes. The Influence of Ring Size Upon Gated Behavior. *Inorg Chem* 1993, 32, 5911-5918.
- J.A. Helpern, A.M.Q. Vande Linde, K.M.A. Welch, S.R. Levine, L.R. Schultz, R.J. Ordidge, J.W. Hugg, H.R. Halvorson: Acute Elevation and Recovery of Intracellular [Mg^{2+}] Following Human Focal Ischemia. *Neurology* 1993, 43, 1577-1581.
- A.M.Q. Vande Linde, B.C. Westerby, L.A. Ochrymowycz, D.B. Rorabacher: Applicability of the Marcus Relationship to Copper (II)/(I) Electron Transfer. Comparison of NMR Self-Exchange Relaxation and Reduction and Oxidation Cross Reaction Kinetics for a Macrocyclic Aminotetrathiaether Copper (II)/(I) Complex in Aqueous Solution. *Inorg Chem*, 1993, 31, 251-257.
- Vande Linde A.M.Q**.**, Chopp M., Lee S.A., Schultz L., Chen Q., Welch K.M.A.: Suppression of Post-Ischemic Brain Tissue Alkalosis by U74006F. *J Neur Sci* 1993, 114, 36-39.
- Levine S.R., Helpern J.A., Vande Linde A.M.Q**.**, Sawaya K.L., Brown E.E., Ramadan N.M., Ordidge R.J., Deveshwar R.K., Welch K.M.A.: ^{31}P NMR Investigation of Human Focal Cerebral Ischemia: Brain pH and Energy Metabolism. *Radiology* 1992, 185, 537-544.
- Halvorson H.R., Vande Linde A.M.Q**.**, Helpern J.A., Welch K.M.A.: Assessment of Magnesium Concentrations by ^{31}P NMR in vivo. *NMR in Biomed* 1992, 5, 53-58.
- Vande Linde A.M.Q., Juntunen K.L., Mols O., Ksebati M., Ochrymowycz L.A., Rorabacher D.B.: Direct Determination of the Self Exchange Electron-Transfer Rate Constant for a Copper (II)/(I) Macrocyclic Pentathiaether Complex. *Inorg Chem* 1991, 30, 5037-5042.
- Vande Linde A.M.Q., Chopp M., Chen H., Helpern J.A., Knight R., Halvorson H.R., Brown E. and Welch K.M.A.: Chronic Changes in Brain Mg^{2+} Concentration After Forebrain Ischemia in the Rat. *Metabolic Brain Disease* 1991, 6, 199-205.
- Chen H., Chopp M., Vande Linde A.M.Q., Dereski M.O., Garcia J.H., Welch K.M.A.: The Effects of Post-Ischemic Hypothermia on the Neuronal Injury and Brain Metabolism After Forebrain Ischemia in the Rat. *J Neurol Sci* 1992, 107, 191-198.

- Chopp M., Chen H., Vande Linde A.M.Q., Brown E., Welch K.M.A.: Time Course of Post Ischemic Intracellular Alkalosis Reflects the Duration of Ischemia. *J Cereb Blood Flow & Metab* 1990, 10, 860-865.
- Chopp M., Vande Linde A.M.Q., Chen H., Knight R., Helpern J.A., Welch K.M.A.: Chronic Intracellular Cerebral Alkalosis After an 8 Minute Forebrain Ischemic Insult in the Rat. *Stroke* 1990, 21, 463-466.
- Ramadan N.M. Halvorson H., Vande Linde A.M.Q., Levine S.R., Helpern J.A., Welch K.M.A.: Low Brain Magnesium in Migraine. Harold Wolf Award winner. *Headache* 1989, 29, 416-419.
- Rorabacher D.B., Bernardo M.M. Vande Linde A.M.Q., Leggett G.H., Westerby B.C., Martin M.J. Ochrymowycz L.A.: Use of Macrocyclic Polythiaether Ligands in Structure-Reactivity Studies of Copper (II)/(I). *Pure & Appl Chem* 1988, 60, 501-508.

Book Chapter

- K.M.A. Welch, S.R. Levine, G. Martin, R. Ordidge, A.M.Q. Vande Linde, J.A. Helpern: Magnetic Resonance Spectroscopy in Cerebral Ischemia. *Neurologic Clinics*. HJM Barnett, VC Hachinski (Eds.) WB Saunders Co., Philadelphia, 1992, Vol. 10, p. 1-29.

Graduate Students Thesis

- Determination of Cadmium Uptake by Parsley, Bandana Upadhyaya, 2011
- Data Analysis of the Correlation Between Processing Variables and Concentrations of Isoflavones in Soymilk, Xiuyu Li, 2005
- The Effect of Various Acidic Solutions on the Concentrations of Genistein in Tempeh, Lori Garlock, 2000

Laboratory Manuals Assembled and Edited

- College Chemistry I Laboratory Manual
- College Chemistry II Laboratory Manual
- Quantitative Analysis Laboratory Manual
- Environmental Chemistry Laboratory Manual

Courses Taught

- Chemistry in Our World (CHEM 110)
- General Chemistry (CHEM 115)
- College Chemistry I (CHEM 135)
- College Chemistry II (CHEM 136)
- Quantitative Analysis (CHEM 331)
- Environmental Chemistry (CHEM 353)
- Environmental Regulations (CHEM 452)
- Advanced Chemistry Experience (CHEM 489)

Recent Presentations

- Ciak, A., Theisen, L., Kuss, L., Deaver, B., Hang, H., Xiong, M., & Vande Linde, A.M.Q. (2017, September). *Effect of Zinc Application on Cadmium Absorption in Kale and Snow Peas.* Poster session presented at the joint meeting of the Food and Drug

Administration Regional Retail Food Safety Seminar and the National Environmental Health Association Region 4 Conference, Commons Hotel, Minneapolis MN; also, presented at the 2018 UW System Posters in the Rotunda, Madison, WI

- Kuss, L., Deaver, B., Jerkovich, T. & Vande Linde, A.M.Q. (2017, September). *Lead and Cadmium Content of Imported and American Food Products.* Poster session presented at the joint meeting of the Food and Drug Administration Regional Retail Food Safety Seminar and the National Environmental Health Association Region 4 Conference, Commons Hotel, Minneapolis MN
- Kraase, J., Dahlen, J., Forrest, G., Olson, A., & Vande Linde, A.M.Q. (2016, January) *Cadmium Detected in Legumes and Other Food Samples.* Poster session presented at the Minnesota Environmental Health Association Winter Conference, University of Minnesota, Minneapolis, MN
- Boberg, K., Lusk, J., Vande Linde, A.M.Q., & Carlson, K.M. (2014, April). *The Effect of Zinc on Cadmium Uptake in Radishes.* Poster session presented at the 13th Annual UW-System Symposium for Undergraduate Research and Creative Activity, UW-Milwaukee, Milwaukee, WI
- Krecker, K., Odero, D., Levie, A., Vande Linde, A.M.Q., & Carlson, K.M. (2013, April). *Cadmium Uptake in Parsley from Phosphorus Containing Fertilizers.* Poster session presented during Research Day, UW-Stout, Menomonie, WI,
- K. Carlson, K., Hashmi, M., Vande Linde, A.M.Q., Little, A., Kirk, J. (2012, July). *Improving on Student-Community Learning.* Workshop presented at the 2nd Annual Conference, ASQ Advancing the STEM Agenda in Education, the Workplace and Society, UW-Stout, Menomonie, WI
- J. Zaloudek, J., Stanislawski, D., Wirtanen, D., Vande Linde, A.M.Q. & Chandler, R. (2012, May). *Universal Design Across the Campus*. Forum presented during the Celebrating Innovative Teaching in the Classroom Event, UW-Stout, Menomonie, WI
- Johnson, B. E., Bandana, U., Vande Linde, A.M.Q., & Carlson, K. M. (2012, March). *Models of Cadmium Absorption by Italian Parsley.* Poster session presented at the National Conference on Undergraduate Research, Weber State University, Ogden, UT; also, presented at the 2012 UW System Posters in the Rotunda, Madison, WI
- Upadhyaya, B., Vande Linde, A.M.Q., & Carlson, K.M. (2010, April). *Cadmium Uptake in the Roots and Leaves of Parsley (Petroselinum Crispum).* Poster session presented during Research Day, UW-Stout, Menomonie, WI
- Adhikari, K., Faust, E., & Vande Linde, A.M.Q. (2009, April). *Relationship of Recharge Rate and Well Water Composition.* Poster session presented at the National Conference on Undergraduate Research, UW-La Crosee, La Crosse, WI;

Funded Research Projects

- Establishment of a Certified Testing Laboratory, $8,300, Stout Foundation Grant, 2004 – 2006.
- Enhancement of the Genistein Content of Soy Foods, $46,606, Wisconsin Soybean Marketing Board, 1999 – 2001.
- Development of Computer Based Chemistry Experiments, $9,766, Stout Foundation Grant, 1998 – 2001.
- Anticarcinogens in Fruits and Vegetables: Effects of Aging, Cooking, Processing and

Storage, $7,005, Faculty Research Initiative Grant, Program, University of Wisconsin-Stout, 1994-1995.
- In Vivo ^{31}P NMR Study of the Influence of Brain Glucose Stores on Cerebral Ischemia, $10,000, Henry Ford Hospital Small Project Fund, 1991– 1993.
- Brain Tissue Alkalosis and Free Radical Formation, $25,500, American Heart Association of Michigan, Grant-In-Aid Program, 1992–1993.

Awards, Honors, and Scholarships

- Tenure, Department of Chemistry, University of Wisconsin- Stout, 1999
- Harold G. Wolf, M.D., Annual Lecture Award, awarded by the American Association for the Study of Headache, for the research publication entitled: "Low Brain Magnesium in Migraine" by Ramadan N.M., Halvorson H.R., Vande Linde A.M.Q., Helpern J.A., Levine S.R. and Welch K.M.A., 1989
- Graduate Teaching and Research Assistantship, Department of Chemistry, Wayne State University, Detroit, MI, 1983 – 1988
- National Chemistry Honor, Phi Lambda Upsilon, National Chemistry Honor Society, Wayne State University Chapter, 1985 – 1988
- Faculty Development Scholarship, De La Salle University, Manila, Philippines, 1981 - 1983
- National Science Development Board Scholarship, Philippine Government, 1978 - 1980
- University Scholarship, University of San Agustin, Iloilo City, Philippines, 1974 - 1977

Notable Services at UW-Stout

- Department Chair, Department of Chemistry and Physics, March 2017 – present
- Chemistry Minor Adviser, 1997 – present
- Academic Adviser, Applied Science and Environmental Science Programs, Ongoing
- Chair, Department of Chemistry Full Professor Promotion Committee, Fall 2018
- Chair, Department of Chemistry Assistant Professor Search Committee, 2016 – 2017
- Vice-Chair, Faculty Senate, August 2013 – May 2017
- Chair, Faculty Senate Election Committee, August 2013 – May 2017
- Member, Faculty Senate Executive Committee, August 2013 – May 2017
- Department of Chemistry and Physics Representative, Environmental Science Program Committee, 2013 – present
- Coordinator, Chemistry Tutor Center, 1997 – 2016
- Schedule Coordinator, Department of Chemistry (and Physics), 2008 - 2017
- Faculty Senate Representative, Search Committee, Provost and Vice Chancellor for Academic and Student Affairs, AY 2014 – 2015
- Faculty Senate Representative, PPC, August 2013 – May 2017
- Faculty Senate Representative, Search Committee, Dean of the College of Science, Technology, Engineering and Math, AY 2013 - 2014
- Chair, Finance Committee, August 2014 – May 2015

- Chair, College of STEM Promotion Committee, Fall 2012
- Co-chair, 38th Annual UW-System Chemistry Faculties Meeting, October 21-22, 2011, UW-Stout
- Department of Chemistry Representative, Applied Science Program committee, 1996 – May 2017

Professional Memberships (Past and Present)

- Minnesota Environmental Health Association
- American Chemical Society
- Council on Undergraduate Research
- Society of Magnetic Resonance in Medicine
- Philippine Association of Chemistry Teachers