



Faculty Profile

Mike Van Stipdonk earned his Ph.D. from Texas A&M University and his B.A. in chemistry from the University of Detroit. His specialty area is analytical and biological mass spectrometry. He teaches classes in general and inorganic chemistry and instrumental methods of chemical analysis.

He came to Wichita State in 2000 and since then has earned three scholarly awards: Wichita State University Young Faculty Scholar, 2004 National Science Foundation Faculty Early Career Development (CAREER) Award, and Kansas Biomedical Infrastructure Network Faculty Scholar Award, 2003.

When he is not researching or teaching, he likes to run, read and think about science and its popularization, and watch what he describes as “really, really bad B monster movies” such as “Robot Monster.” He is married, has three children and owns two cats.

WSU Scientist, continued from page 1

To generate vibrational spectra for the complexes, a beam of infrared radiation from the free electron laser intersects the gas or beam of gas-phase ions. The infrared radiation passes into the cavity of the mass spectrometer where the ions are stored and the vibrations induced by the absorption of infrared photons cause the molecules to dissociate. Scientists then measure the amount of fragmentation induced. As the amount of fragmentation increases, the amount of radiation at a given infrared wavelength absorbed by the gas phase ion also increases.

To assess the accuracy of the laboratory work, Van Stipdonk and his colleagues used computational methods to predict the most likely conformations of the ions, and then compared predicted vibrational spectra with experimentally generated spectra at FELIX. Once they have thoroughly evaluated the data, the team will write one or more proposals for additional research.

Implications of the research

Although Van Stipdonk’s team is interested in the vibrational spectra of gas-phase uranyl complexes for the sake of chemical analysis, their work will support other research projects.

“One area that may benefit from our work will be tracking the proliferation of nuclear materials because we will likely generate characteristic vibrational frequencies for uranyl species that can be used in remote sensing,” said Van Stipdonk. “Another area likely to benefit will be environmental/remediation studies because we still lack a firm understanding of how the solubility and migration of the metal in the geologic subsurface is influenced by the chemical state.”

Look for an update to Van Stipdonk’s research in the spring issue of the LAS Newsletter.

Gridley, continued from page 1

donors present a gift of \$350,000 or more for a Faculty of Distinction, the State of Kansas matches the income earnings on the gift. Using the rate of average return of the Pooled Money Investment Board Portfolio—approximately five percent—the state essentially doubles the amount of earnings on the gift. Fairmount College may use the money to enhance the salary of the faculty of distinction, provide additional operating support and assistance, or pay for travel, equipment or other expenses he or she incurs.



Fairmount College of Liberal Arts and Sciences

A PUBLICATION FOR ALUMNI AND FRIENDS

NEWS

WSU scientist's team to determine structure of gas phase uranium complexes



Mike Van Stipdonk and **Jennifer Morrison**, chemistry, work with the electrospray ionization-ion trap mass spectrometer in the laboratory.

Mass spectrometry work done by **Mike Van Stipdonk**, assistant professor of chemistry, and two research partners has attracted the attention of the FOM Institute for Plasma Physics near Utrecht, The Netherlands (FOM is the Dutch Foundation for Fundamental Research in Matter, Holland). FOM is making it possible for Van Stipdonk's team to determine the structure of gas phase uranium complexes.

At Wichita State, Van Stipdonk and his colleagues from a federal agency developed a methodology to create and study gas-phase complexes containing metal ions and organic ligands. Colleagues at the U.S. Department of Energy asked them to use the same methodology to generate uranyl complexes likely to be present in and around storage facilities at DOE installations or in the environment. (Uranyl is an ion composed of one uranium and two oxygen atoms). After hearing the team report their findings at the national meeting of the American Society for Mass Spectrometry, FOM scientists involved with FELICE (Free Electron Laser for Intra Cavity Experiments) asked them if they'd be interested in using the free electron laser facility to determine the structure of gas phase uranium complexes. Van Stipdonk's team accepted the offer.

To know more about the structures, Van Stipdonk and his colleagues would have to produce the first ever infrared absorption spectra for the complexes. They traveled to The Netherlands in November 2004 to use the free electron laser facility, FELIX (Free Electron Laser for Infrared Experiments), expanded with FELICE to generate the spectra. The National Science Foundation partially funds the FELICE facility and provided some financial support for Van Stipdonk's trip to The Netherlands.

"This work is important because the observation of an absorption or a group of absorptions, at certain frequencies, can be used to confirm chemical structure," said Van Stipdonk. "The frequencies can be used to determine which of several possible structures is correct for a given molecule."

Continued on page 4

Donation makes Professorship in History and Philosophy of Science possible

Fairmount College will get its first Faculty of Distinction—the Curtis D. Gridley Professorship in the History and Philosophy of Science. **Curt Gridley**, a Wichita State University alumnus with degrees in philosophy and mathematics, has given a qualifying gift to make the professorship possible.

"I am grateful for Curt's generosity and this gesture of confidence," said **Bill Bischoff**, dean of Fairmount College. "His actions reaffirm the impact of his undergraduate experience and his support of the liberal arts and sciences."

A field of depth and breadth

Although history and philosophy of science

may appear in name to be a combination of two fields of study, it is actually a complex and far reaching interdisciplinary area. It includes aspects of the history of science and of the philosophy of science, but it is much broader in scope.

"A historian of science studies social, cultural and biographical factors in the development of science as a whole, the development of individual scientific theories or research programs, and the development of entire scientific disciplines," said **Bill Vanderburgh**, assistant professor of philosophy. "Philosophers of science study the epistemological and metaphysical issues and deals with these issues mainly from an abstract, logical point of view."

"Those who study the history and philosophy of science share some of the aims and interests of both areas," said Vanderburgh, whose specialty area is the history and philosophy of science. "HPS is fundamentally interdisciplinary, requiring of its practitioners good knowledge of philosophy, history of science, and at least one special science. There are few limits put on topics or approaches."

The Faculty of Distinction Program

In its 2000 session, the Kansas Legislature created the Faculty of Distinction Program. The program's purpose is to assist state universities in the recruitment and retention of outstanding faculty. When a donor or group of

Continued on page 4

DEAN'S MESSAGE



Dear alumni and friends:

What a great start for the new academic year! We had a record and momentous recruitment year, one not seen since Wichita State

William D. Bischoff

University entered the state higher education system. Fairmount College hired 19 new faculty (see page 3).

This activity reflects the health of the college.

I am pleased to announce **Curt Gridley**, alumnus of philosophy and mathematics, has stepped forward with a major gift for the benefit of Fairmount College and Wichita State University. The Curtis D. Gridley Professorship in the History and Philosophy of Science truly reflects the inherent thrust of a liberal arts and sciences education—that of breadth and depth. I would like to publicly thank **Keith Pickus**, associate dean and associate professor of history, for chairing this search committee. You can read more about the professorship on page 1.

We continue to do well with fundraising. We raised \$1.4 million for our Foundation goal. Our telephone campaign goal was \$135,500; we raised \$139,629, a three percent increase. Both of these accomplishments are remarkable,

considering we were without a development director this past year. We also were able to fund more than \$350,000 in technology requests for the college, making it possible for faculty to more efficiently and effectively teach and research.

I am pleased to announce **Alan Badgley** has joined us as the director of development for Fairmount College. Alan has been a small business owner and seminar presenter. He holds a bachelor of arts degree in business administration from the University of Texas and an MBA from Dallas Baptist University.

Although enrollment across the university is down this semester, Fairmount College has surpassed its goal of 75,000 credit hours by three percent. Our enrollments reflect the belief in the value of a liberal arts education.

The front-line challenge facing the college and the university is the Higher Learning Commission-North Central Association reaccreditation visit during the 2007 spring semester. **Nancy McCarthy Snyder**, associate vice-president for academic affairs and research and associate professor of urban and public affairs, will supervise on-campus preparations. We are revisiting the college planning matrix, updating it with new goals and financial information in concert with HLC-NCA guidelines.

Program assessment continues to be a priority. In preparation for the NCATE (National Council for Accreditation of Teacher Education) visit in October, Fairmount College departments worked

hard to collect data and draft plan revisions in their areas for undergraduate education and teacher preparation. I would like to especially recognize **Sharon Iorio**, associate dean and professor of communication, for her involvement with the redesign of teacher education at Wichita State University.

In closing, I believe this will be another fruitful and eventful year for Fairmount College. As always, I appreciate your support of our students, programs and outreach.

Sincerely,

Wm D. Bischoff

William D. Bischoff
Dean

The Fairmount College newsletter is published two times a year. For information, contact Cheryl K. Miller, coordinating editor, (316) 978-6659 or cheryl.miller@wichita.edu

Donald Beggs, president, Wichita State University
William Bischoff, dean, Fairmount College of Liberal Arts and Sciences

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Former WSU president Warren Armstrong dies at age 70

Wichita State University's 10th president, **Warren Armstrong**, passed away at his Oklahoma home Friday, Oct. 1, after experiencing health problems for several months.

Armstrong served as WSU president from 1983-93, placing a strong emphasis on research, academics and doctoral programs.

"I credit President Armstrong with the strength and reputation of our faculty, particularly through the introduction of doctoral programs," said Jim Rhatigan, longtime and former WSU vice president of student affairs. "He overcame objections from our sister institutions about our capability to provide doctoral programs in engineering, and history shows how right he was to pursue those programs."

Armstrong led the charge to add doctoral programs in electrical, mechanical, and industrial engineering. Doctoral programs in psychology, chemistry, education, and mathematics were also approved during his tenure.

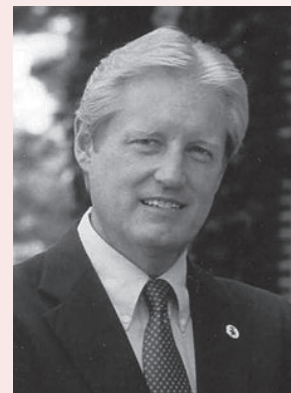
Specific accomplishments during the Armstrong administration include the tripling of sponsored research activities and the addition of 367,000 square feet of new facilities, including the Child Development Center, Devlin Hall, National Institute for Aviation Research, Woodman Alumni Center, and a science classroom and laboratory building, later named Jabara Hall.

He also sought and achieved membership for WSU in the National Association of State Universities and Land Grant Universities, contending that WSU was an "urban grant" university serving a metropolitan area just as Kansas State University serves the agricultural community.

Following his retirement from the presidency in 1993, Armstrong, a professor of history, returned to his self-professed "unending interest in the Civil War," teaching a class on it and publishing a book on the role of Union chaplains.

A memorial has been established for the WSU history department in care of the WSU Foundation, and with All Saints Episcopal Church in Miami, Okla.

--compiled by Joe Kleinsasser



Warren Armstrong

Internships attract Fairmount College students



Jason Bennett and Mariam Mrevlishvili

and alumnus **Jason Bennett** (biological sciences, '03) have participated in internship programs located in Washington, D.C.

Mrevlishvili, a native of Tbilisi, Georgia, is participating in the Georgetown University Fund for American Studies Capital Semester Program. Her internship is in U.S. Representative John Hostettler's office. She graduates from Wichita State in May 2005.

In 2003, Bennett participated in the Washington Semester Internship Seminar Program coordinated through WSU's department of political science. His assignment was in U.S. Senator Pat Roberts' office. He is now attending Texas A&M University as a graduate student in the George Bush School of Government and Public Service.

Many Fairmount College students choose to participate in internships related to their career choices or academic majors. Current student **Mariam Mrevlishvili** (political science)

STUDENT ACCOLADES

Several **Elliott School of Communication** students won awards in the radio and television categories of the 2004 Kansas Association of Broadcasters student competition. **Gabe Juhnke** won second place with his radio complete news feature, "Proletariat"; the "Studio B" cast won first place for television complete newscast; two honorable mentions were awarded to the teams of **Robert Marin** and **Jennifer Beck** and **Erin Dehn** and **Jerod Cantu** for hard news packages; **Robert Marin** won first place for his complete sports feature, "Basketball Tickets, "; **John O'Hara**, **Molly Fox** and **Stephanie Whitcomb** won second place in entertainment programs with "Wichita Metro." The "Studio B" cast includes students from Comm 304 *Studio Video Production*, Comm 604 *Video Storytelling*, and Comm 622 *Live TV News*.

Theresa St. Romain Head won the John Rydjord Graduate Award for Academic Achievement by a Graduate Student.

Vicki Jensen, English, will have a short work, "Sarah to Rebekah," published in "Yours Faithfully: Virtual Letters from the

Bible." The book is an anthology of imagined correspondence between characters from scripture filling in the gaps of the scriptural narratives and offering a commentary on them."

Fayyaz Khan, computer science, won the Delano Maggard, Jr. Graduate Research Grant which supports graduate students in their conduct of independent research and investigation in their field of major interest to discover information or perfect existing knowledge.

Matthew Long, political science, presented "Economic development in Sub-Saharan Africa" at the Undergraduate Research and Creative Activity Forum in April 2004.

Patric Mitchell, history, won the Marie Graham Award for Academic Achievement by an undergraduate history major.

The Wichita Section of the American Chemical Society named **Alaa Abou-Shamala** and **Jacob Shafer**, chemistry, as WSU's 2004 Outstanding Undergraduate Chemistry Majors.

FACULTY NEWS

Faculty Accolades

The Electrochemical Society elected **Francis D'Souza**, chemistry, as the Chairman of the Fullerene and Carbon Nanotubes Division. For the last four years he also served as the Vice-Chairman of the Society and was involved in organizing several national/international symposia and editing proceedings volume books.

James Duram, history, gave the keynote address commemorating Central High School in Little Rock, AK, as a National Historic Monument.

Joanne Levine's course, *Clinical Assessment for Advance Generalist Practices* (social work), was a winner in the 2004 Kansas Technology and Learning Symposiums Exemplary Course Competition in the Web-based/Postsecondary division.

Bill Vanderburgh, philosophy, will serve on the Advisory Board of the Canadian Society for the History and Philosophy of Science.

Jackie Williams, community affairs, will serve as member and chair of the Kansas Commission on Peace Officer's Standards and Train. Williams is the former U.S. Attorney for Kansas.

New Faculty

Jim Bann, assistant professor, chemistry

Michael Birzer, assistant professor, School of Community Affairs

Courtney Boettcher, instructor, School of Social Work

Michael Boyle, assistant professor, Elliott School of Communication

Hongsheng Cao, assistant professor, geology

George Dehner, visiting assistant professor, history

MJ Hwang, assistant professor, School of Social Work

Thalia Jeffres, assistant professor, mathematics

Michael McGlynn, assistant professor, modern and classical languages and literatures-Spanish

Robert Owens, assistant professor, history

Keith Prufer, assistant professor, anthropology

Day Radebaugh, visiting assistant professor, computer science and philosophy

John Robertson, assistant professor, mathematics

Marat Sanatullo, assistant professor, modern and classical languages and literatures-French

Greg Stene, assistant professor, Elliott School of Communication

German Vargas, instructor, mathematics

Deborah Wadman, instructor, modern and classical languages and literatures-German

Mary Waters, assistant professor, English

Kerry Wilks, assistant professor, modern and classical languages and literatures-Spanish