Noted educator Bassam Shakhashiri presents 12th annual Broberg Lecture

This year’s Broberg Lecture offered a message from Dr. Bassam Shakhashiri, a well-known “entertainer” in the field of science education. Dr. Shakhashiri provided an inspirational presentation that focused not only on the wonders of science, but also on the condition of education in today’s society.

Dr. Shakhashiri, a professor from the University of Wisconsin-Madison, describes himself as a scientist by training, teacher and public servant by trade, advocate by conviction and optimist by nature. Shakhashiri is well known in his field and by the public for his enthusiastic devotion to science education.

During his lecture, Dr. Shakhashiri pointed out that one measure of a society is its literacy in science and math. He showed a videotape of Harvard graduates who weren’t able to explain something as simple as the changes in season. Dr. Shakhashiri stressed that today’s graduates are so narrowly specialized, they often have a tendency to overlook the basics.

According to Dr. Shakhashiri, our country should strive to improve literacy in science and math. He proposes a plan to achieve this, which includes support for experimentation, increased representation for minorities and women, and science literacy for all students.

Dr. Shakhashiri also mentioned that while high school students often start out expressing interest in science, math and engineering, by the time they reach college, many of them have lost interest and gone into other careers.

Dr. Shakhashiri feels it is the responsibility of science educators to prevent this from happening and to foster continued interest in science.

Dr. Shakhashiri performed the Briggs-Rauscher Oscillating Reaction during his Broberg Lecture at NDSU in March.

Dr. Bassam Shakhashiri

Dr. Shakhashiri completed his undergraduate work in chemistry at Boston University in 1960, and earned master’s and doctoral degrees from the University of Maryland in 1964 and 1968, respectively.

Shakhashiri joined the faculty at the University of Wisconsin in 1970, where he still works today. He also served as the Assistant Director of the National Science Foundation for Science and Engineering Education in the 1980s, assisting in the development of national programs in science and engineering education and successfully advocating increases in funding from $100 million to $600 million.

Shakhashiri, a member of many scientific and educational organizations, including ACS, is the author of several academic books on chemistry. He is a frequent guest on radio talk shows and has appeared at the National Academy of Sciences, Boston’s Museum of Science and the Smithsonian National Air and Space Museum.

His PBS television programs and frequent presentations rely on “magic” to demonstrate the wonder and excitement of science. His goal is to create an enthusiastic interest in the sciences, which he says will be instrumental in the development of economic health and security of the nation, and increase literacy in science and math.
Tallman named regional editor for journal; awarded DoD grant

Dr. Dennis Tallman has been named a regional editor for the Journal of Solid State Electrochemistry. He was informed of the prestigious appointment during a phone call from editor-in-chief, Fritz Scholz, of Germany. Tallman will be one of only two editors representing North America.

The journal, which is devoted to all aspects of solid state chemistry and solid state physics in electrochemistry, will publish its first issue this summer.

Specific fields to be covered include semiconductor electrochemistry, batteries, sensors, corrosion, ion and electron transport in solid materials and polymers, electrochromism, and many others.

According to Tallman, “The editorial board is a very prestigious group; they are all outstanding electrochemists, so it’s great to be part of this first-time effort.”

Other regional editors include A.M. Bond (Melbourne, Australia), K. Itaya (Sendai, Japan), and H.B. Mark, Jr. (Cincinnati, OH).

Tallman was recently informed that he has been elected to the Board of Directors of the Society for Electroanalytical Chemistry (SEAC).

Tallman, who is a lifetime member and has been active in SEAC since its inception, was one of three new board members elected for a five-year term (six were nominated).

The board is responsible for guiding the society, for promoting electroanalytical chemistry and for organizing the Charles N. Reilley Award Symposium held each year at the Pittsburgh Conference.

At the symposium, two awards are presented: The Reilley Award honors an established electrochemist who has made substantial contributions to the field of electrochemical science. The Young Investigator Award recognizes promising talent in electrochemistry in the early stage of their career.

As a member of SEAC’s Board, Tallman will “bring a different slant to the group. My research is now mostly in the corrosion arena. I’ll probably be the only one on the board coming from that perspective.”

The Department of Defense has awarded Dr. Tallman and co-principal investigator, Dr. Gordon Bierwagen, a $191,568 grant to support their research into “Conducting Polymers for Corrosion Control of Coated Aircraft Systems.”

The grant, which is presented through the Air Force Office of Scientific Research, was one of the largest awarded among the Augmentation Awards for Scientific and Engineering Research Training (AASERT).

This grant augments the $2 million Department of Defense award made to Tallman, Bierwagen, Dr. Marek Urban and Dr. David Farden (Electrical Engineering). The AASERT grant will support two graduate students and two undergraduate students for three years.

The students must be US citizens and studying science and/or engineering.

The proposal that led to the AASERT award was based on research performed by Tallman while on sabbatical leave at the Intelligent Polymer Research Laboratory (IPRL) at the University of Wollongong in Australia.

The research, done in collaboration with Dr. Gordon G. Wallace (the Director of IPRL), will be published in part in a paper entitled “Preparation and Preliminary Characterization of a Poly(4-vinylpyridine) Complex of a Water Soluble Polyaniline.” It will appear in the journal Synthetic Metals.

Collaboration with IPRL in Australia will continue, and the AASERT grant has some funds set aside for exchange of students with the Australian group. Dr. Wallace will be paying a visit to the Tallman/Bierwagen corrosion group in late April or early May.

Not only has Dr. Tallman had a successful year career-wise, but his personal life is going well also.

He and his handball doubles partner, Dr. Jeffrey Suttle, won the state championship in masters doubles at the North Dakota State Handball Tourna-

continued...
ment held in Minot March 7-9. Suttle is a plant physiologist at the USDA lab and is the husband of Nancy Suttle, Administrative Officer in Dean Allan Fischer’s office. This is the third North Dakota state doubles title Tallman and Suttle have won. (Tallman has three other state doubles titles with Dr. David Wells, a dentist formerly of Rugby, ND.)

In other news, graduate student Brent Reems has joined the Tallman Group.

Brent will be focusing on the use of conducting polymers for corrosion control and their study by various electrochemical methods, including electrochemical noise measurements and electrochemical impedance spectroscopy. Brent obtained his undergraduate degree from UND in Grand Forks.

Two postdoctoral associates are also new to the corrosion group. Dr. Sebastien Touzain, who obtained his Ph.D. from University of La Rochelle, France, arrived March 7, 1997. Dr. Touzain specializes in characterization of surfaces and interfaces by electrochemical techniques, including electrochemical impedance spectroscopy.

Dr. Xiaofan Yang will arrive in late April or early May. Her specialty is scanning probe microscopy, including electrochemical atomic force microscopy. Dr. Yang received her Ph.D. from the Department of Materials Science and Engineering, University of Surrey, U.K.

News from the Boudjouk Group

Postdocs Join Group

Two postdoctoral researchers have recently joined Dr. Philip Boudjouk’s research group:

Dr. Huayu Qiu is a visiting professor from Shandong University, China, who came to Fargo in October. His wife, Qingfu Kong, and their 3-year-old son, Chang Qiu, will remain at home in China while Dr. Qiu finishes his one-year visit to NDSU.

With a background in organosilicon chemistry, Dr. Qiu has prepared himself well for his future endeavors.

“I have always thought organosilicon chemistry was very important in chemistry—and very useful for preparing materials. I became interested in this field and was influenced greatly by my Ph.D. advisor, Professor Zuoding Du.”

While Dr. Qiu comes from a land with no windchill factor, his opinion of North Dakota has not been tarnished:

“I love Fargo, and would like to stay at NDSU for a long time. The people here are always polite, and the science here is very advanced. And Fargo’s weather is not that bad—except for the blizzards!”

Dr. Carole Moreau arrived in Fargo in November—just in time to live through one of the worst winters in history. And after experiencing more than 100 inches of snow, it’s no wonder she’s been overheard saying, “I hate the winter in North Dakota.”

Dr. Moreau received her Ph.D. from Université Bordeaux I in Bordeaux, France. During her doctoral research, she con-centrated on organosilicon compounds.

This is Dr. Moreau’s first visit to the United States. While she has spent the majority of her time here in Fargo, she was able to see another part of the country when she went to Chicago for Christmas. She discovered she really enjoyed the larger community, where she was able to visit museums and experience the hustle and bustle of a big city.

Before returning to France in October, Dr. Moreau would like to make a trip to New Orleans. She is especially interested in their French culture—and their famous cuisine.

When she’s not busy in the Boudjouk lab, Dr. Moreau spends time working on her stamp collection, which she has been compiling for 10 years. As you may have guessed, she has collected many stamps from the United States during her stay.

New Arrival

In other news, Youlin Pan (postdoc in the Boudjouk group 1994-96; now a senior chemist with Gelest, Inc.) and his wife, Fengjuan, report the birth of a baby daughter. Mom and baby are doing fine. The Pans, who live in Feasterville, Pennsylvania, also have a son, Yu.

Youlin is the lead author of an article based on his work in Fargo, “The Surprising Reaction of Non-nucleophilic Bases with Hydrosiloles,” which appears in the April 1 issue of Organometallics.

Alumni News


John, a senior executive with Isis Pharmaceuticals, resides in San Diego with his wife, Debbie, and their two children, Brianne and Evan.

Travel note

While in Amsterdam, Dr. Boudjouk saw ample evidence of Fargo’s fame: “International CNN featured our weather continually, as did the UK’s Skyview. The movie ‘Fargo’ has widespread notoriety in Europe and is a cult favorite already. The question is: Where do we go from here?”

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Chelsy Talbacka accepted to UND Medical School

One of Dr. Mukund Sibi’s protégés is off to medical school. Senior Chelsy Talbacka will receive her Bachelor’s degree from NDSU in May; and then it’s off to UND. Quite an accomplishment for someone who came to NDSU as a freshman not knowing what major to choose.

Chelsy, who was named after her mother got the idea from a romance novel, was raised in Naughton, a township just outside of Bismarck. She grew up on her family’s farm and went on to graduate from Bismarck’s Century High School in 1993.

When she initially came to NDSU, Chelsy was undecided on her major. She eventually declared pre-vet—but only because one of her friends was majoring in it. Chelsy changed her major to chemistry during her freshman year, influenced, in part, by the teaching talents of Drs. Mel Morris and David Atwood.

More recently, Chelsy has broadened her chemistry knowledge by working in Dr. Sibi’s lab, where she concentrated on lactone-natural products. During her time with the Sibi Group, she contributed to one of their projects and co-authored a manuscript for the Journal of Organic Chemistry.

After submitting her med school application last year, Chelsy interviewed at UND in December. A panel of 13 conducted the 45-minute interviews, which were structured by directing questions to three candidates at a time.

According to Chelsy, “They asked questions like: What did you read in the newspaper this morning? What do you read for fun? And one of the interviewers asked me a question about dry-wall. My dad works as a dry-waller, and I’ve grown up with it since I was 12, so…” ( Needless to say, she did very well with that particular question.)

“I was so unbelievably relaxed.” Chelsy remembers. “But right after the interview, I thought ‘this was so easy,’ and then you start doubting yourself. But you know it’s over, and you can’t do anything about it.”

The day her acceptance (or rejection) letter was supposed to arrive, Chelsy waited by her living room window for three hours, hoping that the postman would deliver the letter soon. She knew it was on its way, and was anxious to read the results. “The people at UND had gotten their letters Friday, but because of a snow storm, mine didn’t come until Monday.”

The postal service did come through on that Monday afternoon, and Chelsy found out that she was one of the 50 lucky candidates who was accepted to the program. (There were 150 who interviewed and more than 300 had applied.)

Right now, Chelsy is concentrating on her last semester at NDSU and is eager to start medical school in the fall. She is looking forward to the concentrated curriculum. “They give you one or two classes from 8:00 to 5:00 everyday for six weeks, so you can really focus on one particular subject.” When asked if she’s nervous about any of her future classes, she replied. “I am a little worried about the anatomy classes… and the cadavers.”

Chelsy Talbacka
News from the McCarthy Lab
by Ryan Winburn

New Additions

The McCarthy group has recently grown with the addition of a new member, Emily Sarah Grier, on November 26, 1996. She doesn’t take up much room in the lab, weighing only 5 lbs. 12 oz. and measuring in at 18 inches at birth.

While we are not expecting much research productivity from her for quite some time, she has gotten an early jump on chemistry research, having been involved in an excellent photochemical study. To combat a case of jaundice during her first week, she was home treated with a “bili-blanket,” a blanket lined with optical fibers that transfer UV radiation, to decompose the excess bilirubin that causes jaundice.

A second addition to the group is expected sometime in April. A little Winburn is expected to grace the lab sometime between April 7 and April 29. The due date can’t be pinned down more precisely because they grow ‘em bigger in Wisconsin (for a comparison look at the Packers vs. the Vikings), and the baby may have to be taken by cesarean in the early part of April.

One final addition is expected in the Materials Characterization lab in the near future (by summer): a new X-ray powder diffraction (XRPD) instrument. After a lengthy selection process, Philips’ X’Pert MPD system was chosen.

The new unit will modernize the facility with regards to XRPD, and will have several advantages over the functioning, though somewhat dated, diffractometers now present in the lab.

In addition to modern hardware for conventional diffractometry, such as independently-operated sample and detector drives, the system will come equipped with the additional capability of performing thin film analysis. This will include the ability to perform depth-profiled phase analysis of thin film layers and substrates.

The system will also have the ability to analyze in transmission mode, with applications in polymer analysis, and to analyze air and moisture sensitive samples.

Presentations and Awards

Bryan Jarabek recently took third place at the Undergraduate Research Conference in Minot, which came with a prize of $250. He gave an oral presentation of his Denver X-ray Conference poster, “XRD characterization of Compound Semiconductor Solid Solutions: Sn(S,Se) and (Pb,Cd)S.” The associated written article was accepted for publication in Advances in X-Ray Analysis.

Dean Grier will also be giving an oral presentation this April for the North Dakota Academy of Sciences entitled, “Long Term Stability of Cementitious Coal Combustion By-products.” The presentation is on previous and on-going work in our lab regarding the long-term alteration of disposed coal combustion by-products.

*The opinions expressed here are those of the author and do not necessarily represent those of other members of the McCarthy Group or the Materials Characterization Lab.

Chem Club visits schools; plans trip

During the fall and spring semesters, NDSU Chem Club members visited elementary schools to demonstrate chemistry to the youngsters. Club president Amy Singer said, “The first time I didn’t know what to expect, but it was really a lot of fun to be able to teach. Most of the kids had never seen a demonstration like ours before.”

The club met in early April to enjoy a few slices of pizza and discuss upcoming events. In addition to electing officers for the 1997-98 school year (see below), the club appointed Brian Very to serve as a technician for the Broberg Room computers. They also decided to ask Professor Joe Eaton to co-advice the group with Dr. Mukund Sibi.

Nine members of the club are looking forward to a trip to California in mid April. The club, along with contributions from the chemistry department, will pay airfare for the students who attend the ACS meeting in San Francisco.

Three of the students will present posters at the conference, and some will take advantage of ACS-sponsored events, such as a tour of the Sonoma-Napa Valley wineries.

President ....................... Marcia Geutter
Vice President ............... Bryan Jarabek
Treasurer ....................... Lisa Ellingson
Secretary ....................... Scott Peterson

Chem Club member Jason Barron performs a demonstration while elementary students attentively observe

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New chemistry professor Andres Campiglia and his wife, Martha, arrived at NDSU in December, just in time for Fargo’s infamous wind and snow…

Andres was born in Uruguay, where “half of the people are Italian and half are from Spain.” He lived there until he was 15, when the family moved to Brasilia.

After graduating from high school there, Andres went on to attend the Universidade de Brasilia, where he earned his bachelor’s degree in 1982 and his MS in 1985.

The city of Brasilia (population: 2 million) has an interesting history: “Brasilia was built in 1960. The idea was to bring people to the interior of the country, since most of the population lived on the coasts,” said Andres.

The city architecture was planned very carefully before it was built, and the north and south sides of the city are identical. “If you drew a line down the middle, you’d have mirror images on each side. The city is shaped like an airplane, and the people live on the ‘wings,’ while the government offices are in the ‘body’ of the plane.

“There is a lot of grass in Brasilia—but it is all artificial. The landscape is similar to Arizona, with the reddish, clay-colored dirt. The grass was planted to give the city some color.”

In 1986, Andres went to the University of Florida to work toward his Ph.D. It was his first trip to the US, and he found it a challenge to adjust to his new surroundings.

One of the things Andres missed most from Brasilia was the coffee. “When I moved to Florida, there weren’t many espresso machines around, so I had to go far out of my way to find a good cup of coffee.”

Andres not only earned a Ph.D. at the University of Florida, but he also met his future wife there. “Martha was an employee in the general chemistry office, where all of the TAs worked. She was studying education at the university and working in the chemistry department part time,” said Andres.

After completing his Ph.D. in 1990, the couple returned to Brasilia, where they were married the following summer. Martha, who is originally from Michigan, worked in an American school there, while Andres held a position as professor at the Universidade de Brasilia.

In 1995, he spent a year working at Oak Ridge National Laboratory in Tennessee. They returned to Brasilia after interviewing at NDSU in 1996, and Andres completed his work at the Universidade de Brasilia.

“Campiglia” continued on back page...

News from the Cook Group

It was only last August when Professor Gregory Cook arrived to an empty lab in Ladd Hall.

With the help of Stephanie Moe, the first Cook Group undergraduate student, the lab was set up by October and experiments were started.

Today, the Cook Group is comprised of one graduate student and two more undergraduate students, “The Cookies,” who are actively engaged in research.

Shortly following Steph’s arrival, P. Keetheswaran (Keith) joined the group as a first-year graduate student. He is concentrating on research in the area of palladium catalyzed annulation reactions.

Dilinie Fernando, a senior, started in December and is working on chiral C3-symmetric tridentate ligands for asymmetric catalysis. She is looking at graduate schools, but will work in the Cook lab during the summer.

In January, Dana Nouri joined the group to work with Keith on the palladium project.

The group is anticipating the arrival of a postdoctoral research associate, Dr. P. Sathya Shanker, this spring. Dr. Shanker is from Bangalore, India.

In addition to the exciting start of a new research group, Dr. Cook is also anticipating some new beginnings in his personal life. This spring, he and his wife, Lisa, moved into their recently purchased home, and they are anxiously awaiting the birth of their first child in August.

Check out the Cook Group web page: http://quantum.chem.ndsu.nodak.edu/~cook/group/
Undergrads participate in Faculty Research Fellowships

As undergraduates, chemistry majors at NDSU have a unique opportunity to participate in the “Undergraduate Faculty Research Fellowship” program. This year, seven students participated in the program, which is funded by faculty research grants and by the Center for Main Group Chemistry.

Matt Alm
Matt Alm, a 1993 Fargo South High School graduate, works with Dr. Michael Page in the theoretical chemistry lab.

Matt’s research project involves computational studies pertaining to proton affinities, geometries, and heats of formation of various silicon species. “The ability to explain phenomena at the atomic level fascinates me,” Matt says.

Nicole Hovda
“Chemistry has always been an interesting challenge for me,” says freshman chemistry major Nicole Hovda. She is currently working in Dr. John Hershberger’s lab, and has an avid interest in the field.

“I’ve always enjoyed math and science and decided to focus on chemistry. I like not knowing what is going to happen next. It keeps everything exciting.”

Stephanie Moe
Stephanie Moe is a fellowship participant who works with Dr. Greg Cook. She became interested in chemistry while at Century High School in Bismarck.

“I’ve always liked science and math. My high school chemistry teacher, Mr. Altenburg, really got me interested in chemistry and made it a fun learning experience.”

Steph’s research project involves stereoselective organic synthesis for production of compounds having anticancer and anti-HIV properties.

Scott Peterson
Bismarck native Scott Peterson’s faculty mentor is Dr. David Atwood. In 1995, Scott graduated from Bismarck High School, where he first developed his interest in chemistry.

“I’ve always been interested in science and mathematics—my entire life. I really got into chemistry in high school, thanks to a couple of great teachers.”

Scott’s research project centers on bulky schiff base aluminum cations, and he has especially enjoyed “being able to synthesize and characterize my own compounds.” (See page 9 to read about Scott’s other accomplishments.)

Patty Schiltz
Patty Schiltz first became interested in chemistry when she participated in Hankinson High School’s yearly science fair. “I did my first project in 7th grade. Once I got into high school, I started working with natural compounds, and everyone kept asking me to explain the chemistry aspect.”

Working in Dr. David Atwood’s lab has been a great experience for Patty. “I’m learning what it’s like being in a real chemistry lab. Every technique we do helps us look at the details. In high school, we looked at the big picture. Here, I’m learning more methodologies.”

In addition to her work in the Atwood lab, Patty has been instrumental in starting Alpha Phi Omega, a national

“Fellowship Program” continued on back page...
The past couple of months have been very productive for the Atwood group. Several manuscripts have been accepted for publication in journals, such as *Inorganic Chemistry*, *Comments on Inorganic Chemistry*, the *Australian Journal of Chemistry*, and *Bulletin of the Chemical Society of Japan*. Additionally, six more manuscripts have been sent out for review.

The Atwood group has also moved into more luxurious quarters, namely the new four-man Innovative Technologies inert atmospheres glove box located in Dunbar 359. Our only complaint is that it is too wide to host WUNAWANC (the World Under Nitrogen Arm Wrestling Association National Championships). The group has also begun to master(?!), the department’s newest “toy,” a new Siemens SMART CCD single-crystal X-ray diffractometer.

That business aside, it’s now time for an update on the lives of Dave’s Merry Band of Chemists:

Mike Hill, the group’s resident expert on dark fermented malt beverages, will be leaving the Atwood group as of April 8.

After an extremely productive stay at NDSU, including 30 crystal structures in eight months, he has accepted a full-time position at Pilkington Glass, located in the U.K. (Actually, we think that he is just using this as an excuse to escape the North Dakota winter.) Before departing to have tea and crumpets with the Queen, Mike has decided to subject his family to his version of “National Lampoon’s Vacation,” complete with a trip to Wally World. He will be touring the western US for two weeks before flying home. We wish him well in his new position.

Postdoctoral researcher Pingrong Wei is adjusting well to life at NDSU, although he does keep asking whether we think this will be the last snowfall of the year.

His wife, Yuxin Wang, and his daughter, Shuyan Wei, joined him in Fargo in November and are enjoying life in the US. Even though he is hard at work, Wei and his wife have had a chance to play on April 7, just in time for Mike to heckle him before he left for the U.K.

As for his future plans, Jolin is currently awaiting word on one of several postdoctoral positions. If these do not pan out, he has heard that multinational food service corporations such as McDonald’s are looking for motivated and qualified persons to fill drive-through positions. Jolin is already perfecting his interview seminar: “Would you like to Super-Size your Extra Value Meal for only 39 cents more, Sir?”

The Atwood group UGs (pronounced “uhgzzz,” referring to undergraduate researchers) are also doing well.

Scott Peterson is finishing his sophomore year and has applied for several prestigious scholarships. In March, Scott received word that he was chosen as next year’s Goldwater Scholar. (See story at right.) Scott also recently purchased a new car—a Chevy Corsica—to replace his “vintage” '85 Chevy Cavalier.

Junior Amy Singer will be traveling to the National ACS Meeting in San Francisco on April 14 to present a poster entitled “Four Coordinate Lewis Acidic Zinc.” When she’s not in the Atwood lab, Amy keeps herself busy acting as Chem Club president and playing city-league volleyball.

The Atwood lab is also planning on two new additions in the near future:

Dr. Miguel Munoz-Hernandez will be arriving from Ciudad Universitaria, Mexico City, in April. In addition, Dr. Zhan Shu Zhong, from Henan Normal University, China, will arrive later in the spring.
Scott Peterson named Goldwater Scholar

Scott Peterson has been named the 1997-98 Goldwater Scholarship recipient. Scott, an undergraduate researcher in the Atwood Group, is a junior at NDSU. He is pursuing a triple major in chemistry, German and classical languages (Latin and Greek).

Originally from Bismarck, Scott first became interested in chemistry when he was in high school. “I was always good at science and math,” he recalls.

After graduating from Bismarck Senior High School in 1995, he jumped into the NDSU Chemistry Department’s undergraduate fellowship program immediately, joining the Atwood Lab in his first semester. “I came here because they had a lot of opportunities for undergraduates. That was my main reason for choosing NDSU.”

Because he joined the Atwood Group early in his academic career, Scott has been able to witness first-hand the different stages a graduate student experiences. “Jolin [Jegier] has been a great influence on me. I see all of the things he’s going through right now, and I realize that this is something that I want to do someday.”

Scott’s advisor, Dr. David Atwood, has high praise for his undergraduate group member: “Scott is a real pleasure to work with. He is smart, hard-working, and has a good sense of humor.

“I anticipate that he will play a significant role in the development of aluminum cations for polymerization catalysts. He has already been a tremendous help with Jolin. In fact, later this spring he will begin working on this project entirely on his own.”

In addition to anticipating his future as a bilingual chemist, Scott is also looking forward to July 24, 1999. This is the date he and his fiancé, Tanja Pietruska, have set for their wedding. Tanja, who is originally from Germany, is a freshman majoring in natural resource management. Both Scott and Tanja plan to graduate from NDSU in the year 2000. Scott then would like to pursue a Ph.D., and eventually become a university professor.

Carl Gohdes keeps the electronics shop in shape

NDsu alumnus Carl Gohdes joined the Chemistry Department staff last October. Carl, who hails from Durban, ND (population: “about 6”), was hired as a research specialist for the electronics shop in Ladd Hall.

Carl attended the small school in Durban until 2nd grade, when the school closed, and he transferred to the Casselton School District. He graduated from Casselton High School and then came to NDSU where he graduated with a BS in electrical engineering in 1984. He went on to complete his coursework for a master’s degree in environmental engineering.

Following college, Carl was employed by electrical engineering companies throughout the Midwest. Before returning to Fargo, he worked for Sick Optic Electronics in Eden Prairie, MN, where he was the safety applications engineer and a senior environmental products engineer.

Along with maintaining the department’s equipment, Carl is also responsible for teaching the graduate-level instrumentation electronics lab for Dr. Tallman. So far, he has enjoyed the teaching aspect of his job. “It’s fun…and really interesting because everyone looks at things differently.”

When Carl isn’t busy working with the department’s electrical equipment, he enjoys working with equipment of another kind…He is currently restoring a ’54 Studebaker coupe, and can often be seen driving to work in his 1950 Studebaker pickup (on a modern chassis). “I’ve always worked on cars in my dad’s shop on the farm. I guess I thought the new cars were poorly designed, and by the time I’m finished restoring a car, it’s actually worth more than I have into it.”

In addition to his interest in car restoration, Carl also enjoys water sports on the area lakes.
Rodgers receives government’s highest honor for scientists

Kenton Rodgers has been selected to receive the Presidential Early Career Award for Scientists and Engineers, which recognizes outstanding scientists and engineers at the outset of their research careers. It is the highest governmental honor for scientists and engineers.

Rodgers received the award at a Dec. 16 ceremony in Washington, D.C. He also received a monetary award to support continuing research.

“This is a tremendous recognition of Kent’s potential to conduct research in a very competitive and important area,” said Allan Fischer, dean of the College of Science and Mathematics.

Smith said the award is noteworthy because it is based on reviews and comments made by Rodgers’ peers in an especially competitive program. In the ranking process for grant consideration, Rodgers placed in the top 10 percent. That ranking merited his nomination for the presidential award.

“It’s a very flattering award,” Rodgers said. “It’s nice to know your peers feel so strongly about your work and potential to make significant contributions in your field.”

Through the NRI grant, Rodgers is researching how an oxygen sensing protein regulates nitrogen fixation. With a detailed understanding of the process, it may eventually be possible to control bacterial nitrogen fixation for purposes of soil fertilization.

Rodgers joined the NDSU faculty in 1993 after a post-doctoral fellowship at Princeton University. He earned a doctorate from the University of Iowa and bachelor’s and master’s degrees at the University of Missouri at Columbia.

Among the courses Rodgers teaches are introductory chemistry, inorganic chemistry and graduate level chemistry courses.

—It’s Happening at State December 18, 1996

In related news, the American Chemical Society’s scientific advisory panel has selected Dr. Rodgers to receive a Frasch Foundation award of $125,000.

The Herman Frasch Foundation funds agriculturally-related research carried out by tenured or tenure-track faculty during the first seven years of their first tenure-track appointment. The award spans five years, beginning this July.

Postdoc joins Rodgers’ lab

Postdoctoral research associate Nikolay Gerasimchuk recently joined Dr. Kent Rodgers’ lab.

“Nick,” as he prefers to be called, is originally from the Ukraine, where he earned both his master’s and Ph.D. in inorganic chemistry from Shevchenko State University. He performed research in the Ukraine and Hungary, and was a professor at the Ukraine’s Kiev State University.

When Nick first came to the US in 1993, he spent seven months working at Brigham Young University in Provo, Utah. He then continued his studies at Kansas University in Lawrence. While working as a research assistant at the Kansas Advanced Synthesis Laboratory (KASL), Nick earned a second Ph.D. in bioinorganic chemistry in 1996. Nick’s wife, Olga, is still at KU, finishing her Ph.D. in bioinorganic chemistry.

Nick also has a daughter, Maria, who still lives in the Ukraine. She came to visit him in Fargo this winter, and was “astonished” by the different culture. She was especially impressed that we are able to buy fresh fruit and vegetables during the winter. As Nick said, “There’s a blizzard outside, and you can still get bananas here!”

Speaking of blizzards, Nick has had the opportunity to experience his share of them since moving to Fargo. He compares the weather here to that of Siberia, where he has attended scientific conferences. “The weather continued...
Pu prepares for move to Virginia

The Chemistry Department faculty and staff were recently informed that Dr. Lin Pu is leaving NDSU to join the faculty of the University of Virginia at the end of this summer.

Dr. Pu speaks fondly of NDSU: “My group and I are very grateful for the support and the help of the department and the people here over the past two-and-a-half years.” He wishes to still be considered as a member of NDSU even after he leaves.

Several students in Dr. Pu’s group are going to finish their theses by the end of the summer, and some of the group members will move to Virginia with Dr. Pu.

During their time at NDSU, Dr. Pu’s group has published 15 research papers, with one paper in press as a communication in the Journal of the American Chemical Society. Two patents on the materials prepared in Dr. Pu’s group have also been filed. And recently, the editors of Chemical Review and the editors of Tetrahedron: Asymmetry have invited Dr. Pu to write review articles on conjugated materials and asymmetric catalysis.

Even though the big move is still months away, Dr. Pu has plans for a busy spring and summer schedule: In May, Dr. Pu will visit the Merck company in New Jersey to give a research seminar. He is also planning to attend a four-day organic chemistry workshop in Colorado Springs in June. About 20 chemists in the nation in the general area of organic reaction mechanism and process are invited to attend this NSF-sponsored event.

Group member Liang Ma graduated with a M.S. degree in February. This is the first degree ever awarded to someone from Dr. Pu’s group.

During his one-and-a-half years with the group, Liang achieved a great deal. He single-handedly synthesized a large family of optically polyaryleneethynlenes, and he completed a very impressive M.S. thesis.

After finishing his defense in February, Liang joined Affymax, the main company working on combinatorial chemistry. Right now, however, he is up against even tougher challenges: the heavy traffic and the high rent found in the bay area of California, near San Jose.
service fraternity on the NDSU campus. The group organizes food drives, sponsors contests, and coordinates numerous service activities.

Patty, a freshman chemistry major, is considering a future as a science teacher. “I’ve been working with youth groups and helping with the science fair back home. Hopefully, it will give me a better idea whether or not this is what I want to eventually do.”

Brian Very

Brian Very is another Bismarck High School graduate who participates in the fellowship program. Brian’s research in Dr. Philip Boudjouk’s lab is focused on organometallic routes to semi-conducting materials.

This is Brian’s second year working in the Boudjouk lab. He will continue his work next year, and is “anticipating some potential successes” from the research he has performed. The graduate students and postdocs working in the lab have had a positive impact on Brian: “They are some of the best teachers I have ever had the pleasure of working with.”

When Brian isn’t busy with chemistry, he participates in Chemistry Club, P&C Club, and the NDSU Bowling Club. He also enjoys coin collecting.

Mother Nature plays cruel joke on Fargo

If you’re an NDSU alumni who’s been keeping in touch with the folks in Fargo, you’ve probably heard about the winter of 1996-97.

With a seasonal total of 116.6 inches (at Chem-News press time), Fargo-Moorhead has more than tripled their average seasonal snowfall of 37 inches.

Our continuously lousy weather often put us in the national weather spotlight. Reporters from all over the country, including the television networks, regularly checked in on us.

In April, the latest storm, consisting of rain, sleet and snow, delivered seven more inches. It was the eighth blizzard of the season, in addition to five winter storms that dumped precipitation on Fargo and the surrounding area.

Several communities in the area were without power following the spring storm, and President Clinton declared North Dakota a disaster area—the second declaration bestowed upon the state since January 1.

Following the April blizzard, the area’s main concern was the flood situation in the valley. Home owners near the Red River prepared for the spring thaw by building dikes and/or moving valuables out of their basements. NDSU students, faculty and staff got involved with the flood effort, volunteering for sandbagging duties.

One local newscaster jokingly reported seeing “whitecaps on I-29” when the highway was closed due to flooding.

In an interview with The Forum, Moorhead Mayor Morris Lanning summed up many residents’ feelings in this quote: “We’ve lived through blizzards and torrential rains and floods, but we’ve never had all of them at once. It’s been a terrible winter, and this is the worst of the worst...”