

President's Early-Career and DOE Young-Scientist Awards Go to Biochemist John Shanklin, Biology Department

A Presidential Early Career Award — the highest honor given by the U.S. government to scientists and engineers in the beginnings of their careers — was presented this year to BNL's John Shanklin, a biochemist in the Biology Department.

Shanklin was cited for "his internationally acclaimed research on the structure and function of a class of enzymes (desaturases and hydroxylases) that introduce double bonds or hydroxyl groups at specific sites between pairs of carbon atoms in long-chain fatty acids."

The Presidential Awards were established by President Bill Clinton in February 1996, to recognize young scientists' and engineers' demonstrated excellence and promise of future success.

Before this year's award ceremony, Clinton commented, "These gifted young professionals exemplify the best of our science and technology community and will help set the scientific pace for the U.S. and the world in the years ahead. Their passion for discovery and their determination to explore new scientific frontiers will drive this nation forward and build a better America for the 21st century."

This year, 60 scientists and engineers, who were nominated by ten government agencies, were presented with their awards by Jack Gibbons,

Science Advisor to the President, at a White House ceremony on November 3. As a Presidential Award winner, Shanklin is eligible to receive up to \$500,000 over five years to further his research.

Shanklin was further honored by being chosen as one of five researchers to receive the second annual Young Scientist Award for extraordinary scientific and technical achievement. It was presented on the same day by the Office of Energy Research of the U.S. Department of Energy (DOE).

"These awards are both a surprise and a great honor," said Shanklin. "I would like to thank DOE and BNL for the outstanding opportunity that they have given me to pursue my research goals. The unique academic environment here at Brookhaven allows researchers the freedom and support necessary to successfully tackle significant scientific problems."

In his research, Shanklin and his collaborators have made important progress in understanding the process called desaturation, in which the enzyme called desaturase changes saturated fats into unsaturated fats.

Recently, Shanklin and his coworkers have defined the three-dimensional structure of one of these desaturase enzymes. They have also used molecular genetics to determine which parts of the enzyme give desaturases their



John Shanklin

unique properties, and then used this information to improve desaturase by redesigning it with new and desired properties.

These enzymes may one day form the basis for improved oil crops. Examples would include a canola that makes its own low-calorie margarine or produces the raw material for nylon, which is now obtained from petroleum, or for pharmaceuticals. This basic research may have a substantial positive impact on the \$80-billion-per-year market for plant oils, providing many new opportunities for industries that depend on unsaturated plant oils, including food, pharmaceutical

Coming Up

Peter Daum, a scientist in the Department of Applied Science, will give the next Brookhaven Lecture on "Ozone in the Troposphere — From Nashville to Kuwait," in Berkner Hall, on Monday, November 24, at 4 p.m. Please note that this lecture is being held on a nonstandard day.

and chemical companies.

Born in Manchester, England, Shanklin earned his B.Sc. in biology in 1981 from the University of Lancaster, England. He came to the University of Wisconsin-Madison to earn his M.Sc. and Ph.D. in forestry and horticulture in 1984 and 1988, respectively.

After three years as a postdoctoral fellow at DOE's Plant Research Laboratory at Michigan State University, Shanklin joined BNL in 1992 as an assistant biochemist. He was named an associate biochemist in 1994, assumed his current title in 1996 and was granted tenure in 1997.

In addition, he is an adjunct professor in the Department of Biochemistry and Cell Biology at the State University of New York at Stony Brook. Shanklin is also currently president of Friends of Brookhaven, Inc., an advocacy group, the purpose of which is to advance the cause of scientific and medical research.

Fowler Wins Nuclear Medicine Awards

Senior Chemist Joanna Fowler, who heads BNL's Positron Emission Tomography (PET) program in the Chemistry Department, has been honored with two 1997 awards for her research in nuclear medicine. At the annual meeting of the Society of Nuclear Medicine in San Antonio, Texas, she received the 1997 Paul C. Aebersold Award, for outstanding achievement in basic science applied to nuclear medicine. First granted in 1973, the award is named for a pioneer in biological and medical applications of radioactive material. Second, Fowler was recognized for her "important contributions to the design and development of



radiotracers for imaging human brain function and drug action for healthy and diseased states," in the U.S. Department of Energy's (DOE) Biological & Environmental Research (BER) Program citation, presented at a symposium on the occasion of BER's 50th anniversary. BER provides core support for PET research at BNL as a result of its funding research and development in nuclear medicine. Fowler joined BNL in 1969, was named

Chemist in 1971 and has been a tenured senior chemist since 1983. Her honors include the 1986 Jacob Javits Investigator Award in the Neurosciences (JJIAN) from the National Institutes of Health and National Institute of Neurological Diseases & Stroke, which she won jointly with Alfred Wolf, (see story, right); the 1988 American Chemical Society's Northeastern Section Esselen Award for Chemistry in the Public Interest; a Town of Brookhaven's National Women's History Month award in 1991; and the 1993 JJIAN as Principal Investigator. In addition, *Discover* magazine listed research on the effects of cigarette smoking on brain chemistry done by Fowler, Medical Department Chair Nora Volkow and their collaborators as one of the "Top Science Stories of 1996."

— photos on this page by Roger Stoutenburgh

Wolf Honored by Isotope Society



Alfred Wolf

Alfred Wolf, a senior chemist in the Chemistry Department, has won the Melvin Calvin Award from the International Isotope Society.

Named after the 1961 Nobel Prize-winning American chemist, the biennial award was presented during the society's annual conference in Philadelphia on September 15 to Wolf "for [his] outstanding contributions to the science of isotopes and isotopically labeled compounds."

The society has about 1,000 members worldwide and holds meetings in the U.S. and Europe. Its goals include furthering the development of isotopes and their use in pharmaceutical, pharmacological, biomedical research and industrial applications.

In the 1960s, Wolf and his BNL colleagues developed methods which are now standard worldwide for producing short-lived radioisotopes. Among his collaborators, Wolf cites the work of former Chemistry Department colleagues Ronald Finn, David Christman and Thomas Ruth. To this

list, Wolf adds Joanna Fowler, Chemistry Department, who has carried out innovative research on synthetic methods for producing compounds labeled with positron emitters (see photo caption, left).

The development of radioactive positron emitters by Wolf and his coworkers has allowed the development of positron emission tomography (PET), a medical imaging method that provides researchers and clinicians with information on various biochemical processes in the brain and other organs.

PET is now used around the world to diagnose and study neurological and psychiatric disorders, such as Alzheimer's disease and schizophrenia, and tumors such as lung and colon cancer.

"When I started to do basic research related to isotopes at Brookhaven more than 30 years ago, I could never have predicted that it would have led to technology that is very useful in the biomedical field," Wolf said. "The support of BNL management, which has allowed me to freely pursue my own research interests, has made these important scientific developments possible."

Wolf joined the staff of BNL's Chemistry Department in 1951, and he earned a Ph.D. from Columbia University in the following year. He joined the Department as an associate chemist, became a chemist in 1955 and received tenure in 1957. In 1964, he was named Senior Chemist, and he served from 1982 to 1987 as Chemistry Department Chairman.

Among Wolf's many honors is the 1991 Georg Charles de Hevesy Nuclear Medicine Pioneer Award issued by the Society of Nuclear Medicine. He is a member of the National Academy of Science.

Healthline Lecture *Money Still Matters*

For an unprecedented seventh time, attorney George Roach will present "Money Matters When Illness Strikes: A Legal Update," as the next Healthline lecture. Sponsored by the Health Promotion Program of the Occupational Medicine Clinic, the lecture will take place on Wednesday, November 19, from noon to 1 p.m. in Berkner Hall. The Lab community is invited, and the lecture will be available afterwards on audio and videotape in the Research Library, Bldg. 477.

While exploring the financial impact of caring for an ill elderly parent or loved one, Roach will review basic estate planning and the most recent changes in the Medicaid law.

A member of the Legal Aid Society of Suffolk County for the past 19 years, George Roach, Esq., is the Chief Attorney for its Senior Citizens Division. Roach has been the winner of the Suffolk County Bar Association's highest honor, its Presidential Award.

To register for this lecture, complete and return the bottom portion of the Healthline flyer recently sent to all employees to Health Promotion Specialist Mary Wood, Bldg. 490, by Tuesday, November 18.

Do You Know Where Your Records Are? Find Out Firsthand on November 14



Roger Stoutenburgh

Balloons, posters, candy and the continuous playing of the video *Buried Alive* all drew attention to the display in Berkner Hall set up on National Records & Information Management Day last March.

To encourage good records management at BNL, the booth was staffed by Celeste Samuels (left) and Garfield Hawthorne (right) of the Records Management Office headed by Corene Wood (not pictured) within the Lab's Information Services Division.

Some 300 people, including Mark Israel (center) of BNL's Financial Services Division, stopped by the exhibit last March to learn how well-managed record-keeping makes accessing information quick and easy with little administrative effort.

Now, all those who would like to see where their long-buried records are kept on site — and from whence they are retrieved in record time — are invited to tour the records-holding area in Bldg. 494 on South Harvard Street. Tours of BNL's archives will be held from 2 to 4 p.m., and no appointment is necessary. For more information, call Corene Wood, Ext. 5070.

BERA Book Fair

On Thursday and Friday, December 4 & 5, BERA will sponsor a Book Fair in Berkner Hall from 10 a.m. to 3 p.m., featuring fun reading ranging from children's stories to cookbooks to *New York Times* bestsellers.

These new, hardcover books will be sold at a 50-75 percent reduction. They will be in stock, ready for immediate purchase at the fair. In addition, some gift items will also be available.

For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

NYC Bus Trip

Seats are still available for BERA's "Do Your Own Thing" bus trip to New York City on Saturday, December 6, 1997.

The bus will leave the Brookhaven Center promptly at 9 a.m. and leave the city at 6 p.m. In city, the drop-off and pickup point will be Rockefeller Center.

The cost is \$17 per person. For reservations, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Amateur Radio

The BERA Amateur Radio Club will next meet at noon on Thursday, November 20, in Room D, Berkner Hall. Membership fees are due at this time. All BERA members and licensed amateur-radio operators are invited to attend. For more information, call Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

Cooking Exchange

The next meeting of the Cooking Exchange for on-site residents, their spouses and friends will be held on Thursday, November 20, from noon to 1:30 p.m.

To join, bring a favorite dish or salad to share with the group and they will provide the rest. To celebrate autumn and the Thanksgiving holiday, all meeting-goers are encouraged to bring a homemade pie as well; if there are enough entries, then there will be a contest to see whose is best!

For more information, call Vicky Chang, Ext. 1046, or Greta Kiers, Ext. 1036.

Bridge DOE Info

Through a new site on the World Wide Web, employees of the U.S. Department of Energy (DOE) and its contractors may take advantage of free electronic access to energy-related material from January 1996 through the present in the form of the full text of 21,000 documents and 200,000 bibliographic records. The site is updated daily with more current as well as older documents.

Called DOE Information Bridge, the site located at <http://apollo.osti.gov/dds>. To use this Web site, you must first obtain a password by e-mailing informationbridge@adonis.osti.gov. For on-site assistance in accessing this site and its information, call Michiko Tanaka, Ext. 7761.

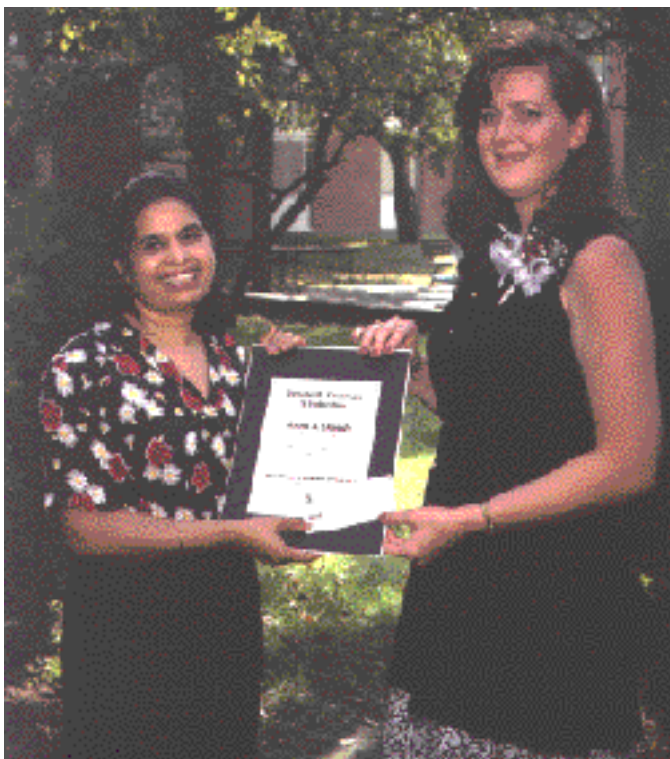
Volleyball

Standings as of November 11

League I		League III	
Bikers & Spikers	11-1	Silver Bullets	12-0
Rude Dogs	11-4	Group Sets	6-3
Set to Kill	8-7	Just 4 Fun	7-5
Scared Hitless	6-9	Upton Ups	4-5
ReTurners	0-15	Just in Time	5-7
League II		Six Samurai	2-7
Spiked Jello	10-2	NWO	0-9
Monday Nite Live	9-3	Open League	
Safe Sets	8-4	Shank, Carry & Throw	9-6
Undecided	8-4	Spikers	8-7
Jao-About-That	7-5	Death Volley	6-6
Nuts & Bolts	4-8	Pass, Set & Crush	7-8
Fossils	2-10	Far Side	6-9
Setups	0-12		

Chasman Scholar Learns Perseverance Pays

Vinita Ghosh (left), then co-chair of the Brookhaven Women in Science (BWIS) Scholarship Committee, presents Janet Dowdy, this year's recipient of the Renate W. Chasman Scholarship for Women, with a certificate and a check for \$2,000. The presentation took place on July 28, at BWIS's annual summer reception, a few days before Dowdy, her husband and two daughters were to move to their new home near West Virginia University, to allow Dowdy to begin her pursuit of a Ph.D in pharmacology and, ultimately, a career in research. She had graduated from the State University of New York at Stony Brook with a B.S. in pharmacology last May, culminating the return to higher education that she had begun in 1992, ten years after graduating high school. That hiatus qualified Dowdy as a "re-entry" woman, one who returned to school to pursue a degree in the sciences, engineering or mathematics. Named after the late renowned BNL physicist Renate Chasman, the scholarship, which was first awarded in 1986, is intended to encourage women whose college education was interrupted. To raise funds toward future Chasman awards, BWIS is now selling canvas tote bags featuring BNL's 50th anniversary logo, for \$9 each, and \$7 each for students. For more information, call Gail Schuman, Ext. 7985.



Roger Stoutenburgh

**Registration due?
License due?
Save postage!
Save time!
Pick up, Drop off
DMV Forms
On Site!**

Pick up and drop off completed New York State Department of Motor Vehicle (DMV) forms at the BERA Sales Office, Berkner Hall, weekdays 9 a.m. to 1:30 p.m., for DMV pickup on Mondays and Thursdays. Turnaround time will be only 48 to 72 hours!

New forms are also available at in the lobby of Human Resources, Bldg. 185. For more information, call the DMV hotline, 227-3537.

You're Invited to the International Festival!

As part of the Lab's 50th-anniversary celebration, BNL's International Festival will be held beginning at 5 p.m. in Berkner Hall on Thursday, November 20. After an hour of complimentary hors d'oeuvres and refreshments, the entertainment will commence at 6:15 p.m., when Lab employees and guests will offer a program of music, dancing, singing and more, to share their cultures, ethnic backgrounds and traditions with all those who attend. Afterwards, pastries and coffee will be served, and, at 9 p.m., all are invited to dance to DJ music.

If you and yours plan to attend, then please RSVP by Monday, November 17, by completing and returning this coupon or the one on the bottom of the registration flyer mailed to all employees earlier this week.

International Festival Registration Form

Yes, I'd like to attend the International Festival, beginning at 5 p.m., on Thursday, November 20, in Berkner Hall:

name _____ bldg. _____ ext. _____
dept./div. _____ number in party _____

Complete and return this coupon by Monday, November 17, to Eva Rothman, registration chair, Bldg. 725B.

Fall Fling Tonight

BERA's third seasonal TGIF party, the Fall Fling, will be held tonight, November 14, at the Rock Hill Country Club, off Clancy Road in Manorville, starting at 6 p.m. The cost is \$5 per person, which covers hors d'oeuvres and DJ Alex; a cash bar will be available.

The party is open to all BERA members and their friends, and no reservations are required. For more information, call Bob Marascia, Ext. 7779.

Service Awards

The following employees celebrated service anniversaries during October:

- 35 Years**
- Rodger A. Hubbard AGS
 John T. Keane NLSL
 Mario A. Manni Physics
 Alan R. Schmidtchen Info. Serv.
- 30 Years**
- Barbara D. Gaer Instrumentation
 Alfred C. Saulys Physics
 Fern M. Simes Physics
 Frank Toldo AGS
- 25 Years**
- Walter J. Hughes Plant Eng.
 Robert R. MacGregor Chemistry
 Peter N. Palamidis Plant Eng.
 Lowell A. Ross Plant Eng.
 Alan J. Stevens RHIC
- 20 Years**
- James B. Boomer Plant Eng.
 Joseph J. Fortunato Plant Eng.
 Michael M. Goldman Director's Off.
 Arnold R. Moodenbaugh App. Science
 Ronald E. Ondrovic DCP
 Erwin S. Rodger AGS
 Barbara Ann Simpson DCP
 Leonard A. Slatest CCD
 Bruce A. Weatherell CCD
- 10 Years**
- Anthony Caracappa Physics
 Steven C. Farrell Central Shops
 Peter J. Heilig Physics
 James J. La Bounty RHIC
 Debra L. Maceluch Human Resources
 Domenick J. Milidantri RHIC
 Arthur J. Piper AGS
 Bridget T. Ramos Adv. Tech.
 Marian Clare Retundi Financial Serv.
 Deborah A. Shurberg Adv. Tech.
 William O. Themann RHIC
 Thomas R. Van Winckel RHIC
 Douglas R. Wallace Applied Science
 Maria-Gracia A. Webster Adv. Tech.
 Michael Wiplich Physics
 Jimin Xu Adv. Tech.

Bowling

Purple & White League

10/23: B. Mullany 252/207/205/664 scratch series, S. DiMaiuta 242/211/205/658 scratch, Don King 247/220/643 scratch, R. Larsen 223/220, K. Riker 213/200, M. Yanez 199/181, R. Raynis 222, A. Warkentien 219, B. Tozzie 219, E. Meier 214, N. Besemer 206, R. Eggert 203, J. McCarthy 203, J. McCaffrey 195, D. Reilly 188, M. DiMaiuta 187, T. Mehl 184, J. Addressi 183.

Red & Green League

10/28: R. Eggert 279/207/676 scratch series, K. Asselta 246/233/672 scratch, M. Meier 247/201/641 scratch, J. Mayeski 223/203/614 scratch, R. Mulderig Jr. 214/201, R. Mulderig Sr. 260/639 scratch, R. Larsen 223, K. Koebel 221, F. Wahlert 211, E. Larsen 216, O. Mirjah 210, E. Sperry III 209, D. Fisher 208, S. Logan 207, K. Riker 204, J. Griffin 203.

Team Seeks Your Ideas Regarding New Suggestion/Concerns Program

The BNL Self-Assessment Improvement Team (SAIT), which was introduced in the Brookhaven Bulletin on August 8, 1997, has developed recommendations for improvements to the Laboratory's self-assessment program.

One of SAIT's recommendations is to design and implement a new and improved Employee Suggestion/Concern Program. While the team cannot interview everyone on site, employees can submit their ideas of what the new program should look like. Issues to think about include:

- a common program to handle both employee suggestions and concerns.
- one BNL-wide program vs. separate efforts for individual departments and divisions.
- incentives or rewards.

If you have ideas about this, please contact one of the following SAIT members: Bill Brown, Department of Advanced Technology (DAT), Ext. 7230 or e-mail brown1@bnl.gov; Dan Galligan, Plant Engineering Division, Ext. 5409; Kathy Nasta, DAT, Ext. 2267 or e-mail nastak@bnl.gov; or Steve Stein, Director's Office, Ext. 5694 or e-mail stein1@bnl.gov.

Over the next few months, further articles will detail other SAIT initiatives. As much as possible, it is the team's intent to adhere to the guiding principles of self-assessment: increase employee participation, enhance communication and ensure management commitment to follow through.

Fidelity Investment Counseling Sessions

A Fidelity Investments representative will be at the Lab on Wednesday, December 3, to hold individual sessions with employees who are interested in learning more about their retirement-savings and investment options. To schedule one of the 30-minute appointments, call (800) 642-7131.

1997-98 United Way Drive Kicks Off Today — Make It a 50th-Anniversary Record Year!

As BNL's annual United Way Fund Drive kicks off in the Lab's 50th Anniversary year, BNLers can look back on years of enthusiastic campaigns that have, in total, generated several million dollars in Lab employee contributions to Long Island's United Way.

Used by one in every three Long Islanders, the over-160 United Way-supported service agencies ensure that, whatever outside assistance Long Islanders need — guidance for youth, training for the disabled, care for seniors, etc. — there is somewhere to go for help.

"With our history of commitment to build on," says Ann Emrick, chair of the 1997-98 fund drive, "I believe that, in the Lab's 50th anniversary year, we can reach our pledge goal of \$90,000 in record time."

Today, BNLers should receive donation forms in the mail.

"Please join in the BNL effort to contribute to our community. So much



In 1987, BNL's gang of UFOs (Unidentified Fundraising Organizers) descended from their bubble-chamber spaceship, complete with paper-bag headgear, on their way to raise funds at the Lab.



Roger Stoutenburgh

The Lab's 1994 United Way fund drive raised such wholehearted support that the BNL's department and division fundraisers formed a heartfelt thank-you.

Computing Corner

The Computing & Communications Division (CCD) announces the following:

No MIXing

CCD will not hold a Monthly Information eXchange (MIX) meeting this month.

Microsoft ACCESS Training

Seats are still available in the following Microsoft ACCESS training classes: intermediate on November 18 & 19, and introduction on November 20 & 21. To register, contact your training coordinator or call Pam Mansfield, Ext. 7286, or Julie Pergan, Ext. 4144.

LabVIEW & Other Training

Those interested in classes on LabVIEW or other applications should contact Mansfield, Ext. 7286, or their training coordinators to register their interest. Classes are scheduled based on the number of requests received, and those on the waiting list are notified two weeks before the start of classes.

Arrivals & Departures

Arrivals

- Nils S. Danielson RHIC
 John D. Glass Jr. Medical
 Salim A. Massoud AGS
 Braulio B. Matamoros Financial Serv.
 Zdravko Zojceski NLSL

Departures

This list includes all employees who have terminated from the Lab, including retirees:

- Jeanmarie Volkmann Cont. & Proc.

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Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status.

Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882; call the JOBLINE, Ext. 7744 (344-7744), for a complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBS/jobs.html>.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

DD4775. TECHNICAL POSITION - (reposting) Requires an AAS in a technical field or equivalent experience, as well as experience working with digital/analog electronics and power supplies. Will repair and test data-acquisition equipment for the Communications & Support Group. Alternating Gradient Synchrotron Department.

RP2000. SECRETARIAL POOL POSITIONS - Requires an AAS in secretarial science or equivalent experience, as well as excellent communication and PC skills. Familiarity with WordPerfect 6.1 for Windows, MSWord, spreadsheets (Excel) and graphics software (Harvard Graphics) highly desirable. Will provide secretarial support on a temporary, part-time basis as needed in various Lab departments. Human Resources Division.

DD4547. TECHNICAL POSITION - Requires an AAS or equivalent experience in survey methodology and a background in precision-alignment techniques, including the use of optical levels and theodolites. Familiarity with machine tools and precision-measuring tools also required; computer skills desired. National Synchrotron Light Source Department.