

Recent RIKEN-BNL Workshop Focuses on Life Sciences

In the ten years since the RIKEN BNL Research Center (RBRC) was formed, most of BNL's interactions with Japan's Institute of Physical & Chemical Research (RIKEN) have centered on physics. However, a BNL-RIKEN workshop held at the Lab on September 20-21 focused on another part of the scientific spectrum — life sciences.

"There's a larger biological infrastructure in Japan than physics, and RIKEN is one of the major health and biological institutes there," said Fritz Henn, Associate Laboratory Director for Life Sciences. "The idea of this workshop was for them to interface with the key areas we focus on at Brookhaven."

Those areas of study include: structural biology, positron emission tomography (PET), nuclear magnetic resonance (NMR), and biological systems. During the two-day workshop, 16 matching talks "gave both groups a good idea of what the other was up to," Henn said. For example, a presentation by BNL chemist Joanna Fowler, Medical Department, about PET tracer development was followed by a RIKEN scientist's latest findings in the field.

The RIKEN group, led by Executive Director Yoshiharu Doi, also toured the Lab, making stops at the Relativistic Heavy Ion Collider, the Center for Functional Nanomaterials, the National Synchrotron Light Source, and the Center for Translational Neuroimaging.

The RBRC is currently dedicated to the study of strong interactions, including spin physics, lattice quantum chromodynamics, and RHIC physics through the nurturing of a new generation of young physicists. Henn said he would like to see a similar kind of RBRC involvement with life sciences.

BNL's life sciences group has already been invited back to RIKEN for a similar type of workshop on the other side of the world.

— Kendra Snyder



During a tour of BNL, RIKEN Executive Director Yoshiharu Doi (front, center) and his group, accompanied by Deputy Lab Director for Science & Technology Doon Gibbs (back, second from right) and others, visited the Center for Functional Nanomaterials. There, BNL's Yimei Zhu (front, right) showed them the world's first 200kV, aberration corrected, dedicated scanning transmission electron microscope. The custom-designed instrument was funded by DOE and manufactured by Hitachi.

Working Toward New Energy With Electrochemistry

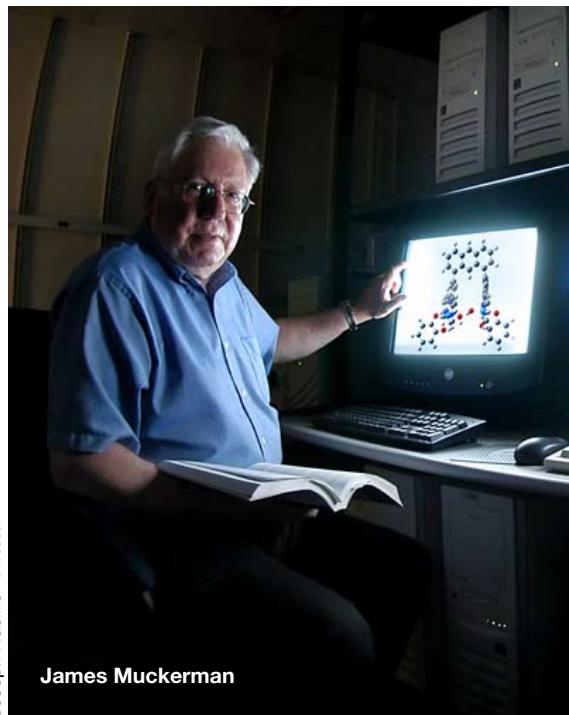
In an effort to develop alternative energy sources such as fuel cells and solar fuel from "artificial" photosynthesis, scientists at BNL are taking a detailed look at electrons — the particles that set almost all chemical processes in motion.

Electron transfer plays a vital role in numerous biological processes, including nerve cell communication and converting energy from food into useful forms. It's the initial step in photosynthesis as well, where charges are first separated and the energy is stored for later use — one of the concepts behind energy production using solar cells. Under-

standing and controlling the movement of electrons through individual molecules also could allow for the development of new technologies such as extremely small circuits, or help scientists find catalysts that give fuel cells a much-needed boost in efficiency and affordability.

At the 234th National Meeting of the American Chemical Society (ACS) held at Boston on August 20, BNL's James Muckerman, Marshall Newton, and Ping Liu discussed how these applications are related to their most recent findings. Their research is highlighted below:

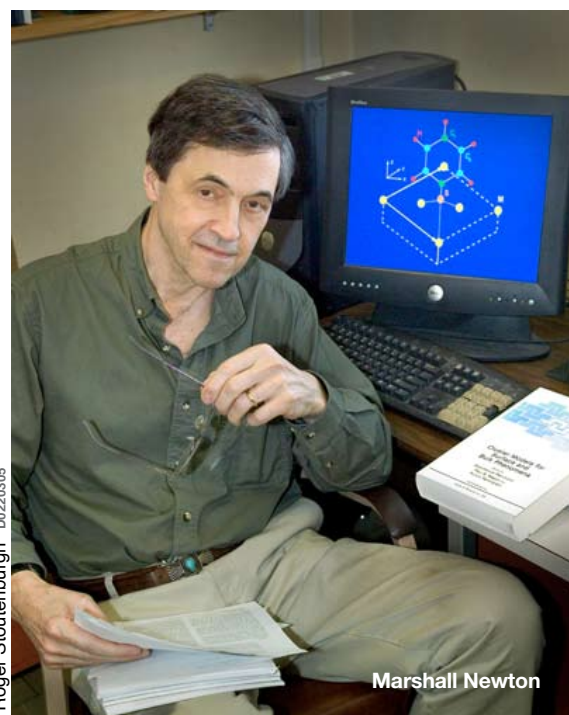
The research by Muckerman and Liu is funded through DOE's Hydrogen Program, which implements the President's Hydrogen Fuel Initiative, a five-year program that began in 2003 to sponsor research, development, and demonstration of hydrogen and fuel cell technologies. Specifically, the funding derived from DOE's Office of Basic Energy Sciences within the Office of Science, which also funds Newton's work.



James Muckerman



Ping Liu



Marshall Newton

Different Way to Turn Water into Fuel

James Muckerman of the Chemistry Department works with a team of researchers to design catalysts inspired by photosynthesis, the natural process by which green plants convert sunlight, water, and carbon dioxide into oxygen and carbohydrates. The team includes chemists Etsuko Fujita and Dmitry Polyansky, and postdoc Ming-Kang Tsai, all of Chemistry, and collaborators Koji Tanaka and Tohru Wada of the Institute for Molecular Science in Okazaki, Japan. The researchers' goal is to design a bio-inspired system that can produce fuels like methanol or hydrogen directly from carbon dioxide or water, respectively, using renewable solar energy.

To replicate one of the important steps in natural photosynthesis, Muckerman and the group use molecular complexes containing the metal ruthenium as catalysts to drive the conversion of water into oxygen, protons, and electrons. Specifically, they have set out to determine the electronic activity of a catalyst recently developed in Japan. Unlike previous ruthenium catalysts, which have a very short life, this catalyst has quinone ligands attached to each of its ruthenium centers. These electron-accepting molecules appear to make the catalyst very active and stable. The challenge is to determine exactly how the catalyst works.

"It was a controversial result," said Muckerman, who compares the lab results to calculations based on theory.

(continued on page 2)

Affordable Alternative for Fuel Cells

Platinum is the most efficient metal electrocatalyst for accelerating chemical reactions in fuel cells. However, the reactions caused by the expensive metal are slow, and undesired side reactions often degrade the electrode. To find an affordable alternative with high activity and stability, Ping Liu of Chemistry and her research group are introducing ruthenium oxide to the electronic system. By carefully forming just one thin layer of platinum on a ruthenium-oxide surface, Liu has calculated that the oxidation-reduction reaction (the driving force for fuel cells) happens almost as quickly as with a pure platinum catalyst, while using much less of the pricey metal and preventing its dissolution.

"Theoretically, when there's one monolayer of platinum on ruthenium-oxide, it has very close activity to pure platinum," Liu said. "It's not quite as good, but it's very close. This surface should be one of the alternatives we consider for oxidation-reduction catalysts."

Liu works on this research with Radoslav Adzic, Miomir Vukmirovic, and James Muckerman, supported under the DOE hydrogen fuel initiative program, "Metal-metal oxide electrocatalysts for oxygen reduction," led by Adzic. Future plans include looking for ways to modify the surface, adding other elements or metals, and further reducing the cost by searching for a surface material less expensive than ruthenium oxide.

— Kendra Snyder

Jumpstart in Organic Electron Transfer

Using organic molecules as electronic components in nanoscale devices could lead to various technological advances including small-scale circuits for improving solar cells. One of the most important issues in this field is the role of molecule-metal contact and the electron transfer that occurs between the two. With this idea in mind, Marshall Newton, a member of the Thermal, Photo-, and Radiation Chemistry Group in Chemistry, and former Brookhaven Research Associate Vasili Perebeinos studied the electronic activity involved in the self-assembly of sulfur-capped benzene molecules supported on a gold surface. Their results were surprising:

"The bottom line is that most of the electrical action in the formation of this interface has already happened within the organic layer, without direct involvement of the metal," said Newton, who develops models to understand these interactions in molecular systems. "That's unexpected because people typically say that the big electrical action involves charge moving between the organic part and the metal surface. But in this case, the electronic rearrangement occurs internally during the process of bringing all of these organic chains together before they are in contact with the metal."

Newton believes this phenomenon is caused by the need to reduce electrical repulsions between the side-by-side organic chains.

— Kendra Snyder

CALENDAR
OF LABORATORY EVENTS

- The BERA Store is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- More information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Calendar events with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermediate, Advanced classes. Various times. All are welcome. Learn English, make friends. See www.bnl.gov/esol/schedule.html for schedule. Jen Lynch, Ext. 4894

Mondays: BNL Social & Cultural Club
Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov

Mondays: Pilates
Noon-1 p.m. Rec. Hall. Ext. 5090

Mondays & Wednesdays: Pilates
5:15-6:15 p.m. Rec. Hall. Ext. 5090

Mondays: Jiu Jitsu Club
6:30-7:30 p.m. B'haven Center. All levels, ages 6 & up. \$10/class. Tom, Ext. 4556

Mondays & Thursdays: Kickboxing
\$5 per class. Noon-1 p.m. in the gym. Registration is required. Ext. 8481

Mon., Thurs., & Fri.: Tai Chi
Noon-1 p.m., B'haven Center North Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov

Tue., Thurs. & Fri.: Ving Tsun Kung Fu
Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, bradley@bnl.gov

Tues. & Thurs.: Jazzercise
Noon, Rec. Hall. Ext. 5090.

Tuesdays: Hospitality Coffee
10:30 a.m.-noon, Rec. Hall lounge. All welcome. Ext. 5090

Tuesdays: BNL Music Club
Noon, B'haven Center, N. Room. Come hear live music. Joe Vignola, Ext. 3846

Tuesday & Thursday: Aerobic Fitness
5:15 p.m., Rec. Hall. 10 classes for \$40 or \$5 per class. Pat Flood, Ext. 7866, flood@bnl.gov

Tuesday & Thursday: Aqua Aerobics
5:30-6:30 p.m., Pool. Ext. 5090

Tuesdays: Knitting, Crochet Club
2-4 p.m. Rec. Hall. Lessons of basics, yarns, needles available. Su Yen Chae, Ext. 1051, suyenchae@yahoo.com.

Tuesdays: Toastmasters
1st and 3rd Tuesday of each month, 5:30 p.m., Bldg. 463, Room 160. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmstrs/

Tue., Wed. & Thu: Rec Hall Activities
5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Wednesdays: On-Site Play Group
10 a.m.-noon. Rec. Hall. Infant/toddler drop-in event. Parents meet while children play. Petra Adams, 821-9238.

Wednesdays: Ballroom Dance Class
B'haven Center, N. Ballroom. Instructor: Giny Rae. Starts September 12 and 19. Ext. 3845.

Wednesdays: Weight Watchers
Noon-1 p.m. Michael Thorn, Ext. 8612

Wednesdays: Yoga
Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov

Thursdays: Reiki Healing Class
Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholm, Ext. 2027

Fridays: Family Swim Night
5-8 p.m. BNL Pool. \$5 per family

Fridays: BNL Social & Cultural Club
Noon-1 p.m., B'haven Center, South Room, free beginners dance lessons. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov

CIGNA Representative

A CIGNA Healthcare representative is available as needed in Human Resources, Bldg. 400, or by phone to assist with claims issues you have been unable to resolve yourself through CIGNA's Customer Service number (1-800-CIGNA24). Mary Beth Kivlen will be available by appointment only. You will need to provide all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

In Memoriam, Frances Ligon

Frances Ligon, an applications engineer in the Business Systems Division (BSD), died on September 1, 2007. She was 56.

In expressing the deep loss felt by friends and coworkers at BNL, April Gray of Fiscal Services Division said, "Fran was a woman of many talents. She touched many lives."

Ligon was first hired to work at BNL in the secretarial pool on October 6, 1975, and she was promoted that same year to secretary in the former Department of Applied Science. By 1979, she was an executive secretary in the Director's Office, where, a year later, she became an equal opportunity assistant. In 1991, she was promoted to senior equal opportunity representative and, in 1992, she moved to the Human Resources Division (HR) with that title. For five years, Ligon continued to develop the Lab's equal opportunity efforts. In 2001, with Ahovi Kponou of the Collider-Accelerator Department, Ligon co-authored a paper, "Affirmative Action: The Future Is Yours — Get Ready — Career Options in Scientific and Technical Fields," published on September 18.

In addition to helping others find opportunities, Ligon furthered her own education. She earned an A.S. in secretarial science from Suffolk County Community College in 1981, a B.S. in business administration from St. Joseph's College in 1991, and was also certified by Cornell University in equal opportunity studies. Currently, she was working toward her MBA from Dowling College, and having completed a degree in seminary school through on-line courses was ordained this year.

After her 17 years in the equal opportunity field, Ligon became interested in a new, more business-oriented career path. She requested to be trans-



ferred to the position of HR systems specialist; then in 2001, she joined the Business Systems Division (BSD). There, her work was mainly focused on eliminating as many manual processes as possible, such as using electronic time-reporting.

Said Robert Retundi, Ligon's supervisor in BSD, "As an applications engineer, Fran was involved in the implementation of various Peoplesoft projects, such as employee self-service and managers' desktop. Her knowledge of the Human Resources Division provided the Business Systems Division with a wealth of information that helped in the successful implementation of various projects. She was a pleasure to work with and is greatly missed."

From HR, Employee Services Manager Susan Foster said, "Fran Ligon was always teaching someone something. It seemed to come naturally to Fran and she was good at it. People felt her sincere desire for their success. She touched many people with her warm style, quick wit and direct manner. Her magnificent voice will echo in our hearts for a very long time. She is missed."

Ligon's teaching ability became another of her contributions. Sponsored by BNL in the

mid-1980s, she and colleagues taught and sponsored free classes in elementary computing to adults and children in neighboring communities. Local schools provided transportation, space was donated, and BNL provided computers and instructors. Due in part to Ligon's long-term commitment, these classes continued for many years. On March 21, 1995, she published her second paper, "Introduction to Computers: A Reference Guide." Both papers can be found in the BNL Research Library.

Ligon's voice — best known through her church community choir — also benefited BNL. As director of the BNL Gospel Choir, which began in 1991, Ligon led concerts held sometimes at the Lab, but more often — about ten times a year — out in the community. At these public concerts, Ligon told the audience about the Lab and encouraged them to visit on Summer Sundays. When requested, Ligon used her creative musical talent on other Lab occasions. In 2006, at a "Volunteer Service Agency" event held in Berkner Hall, she and BNL Music Club members gave a concert.

Said Joe Carbonaro of the Music Club, "We lost a very

special person in Fran Ligon. Her musical talents were only exceeded by her faith, as well as her desire to teach others that they too could succeed if they tried. If her passion for singing has rubbed off on me in even a small way, I feel blessed. Even though I can selfishly wish her still here, because there was so much more singing I wished to share with her, I know she is at peace because she loved her life and lived it to the fullest."

This year, the Brookhaven Veterans Association asked Ligon to arrange a BNL choir at a Memorial Day event. Ligon advertised for Lab singers, led rehearsals, provided musicians, and whole-heartedly inspired the group with her spirit.

Said Don Farnam of the Veterans Association, "When Fran Ligon led the choir at our 2007 Memorial Day ceremony, she not only brought great joy to those in attendance, she thoughtfully orchestrated a program that lent an immeasurable solemnity to the occasion. The Brookhaven Veterans Association along with the many, many souls she touched will miss her great gifts of voice and passion for life."

A resident of Riverhead, Ligon is survived by her husband John; son Jonathan; sisters Pat Bell and Mary Cooper; brothers Jimmy Bell, a BNL retiree, and Kenny Bell; sisters-in-law Shirley Ligon and Rose Rita Watson; brothers-in-law Frederick Ligon, a BNL retiree, and Richard Ligon; nieces including Carol Bell of BNL's Radiological Controls Division; and grandchildren Kelix and Katana Ligon.

— Liz Seubert and Diane Greenberg

More about Fran Ligon, including her extensive volunteer work, is described in an article by Diane Greenberg, "On the Job With Fran Ligon," in the Bulletin, March 18, 2006.

Coming Up: Two Brookhaven Lectures

Wednesday, 10/24: 428th Brookhaven Lecture
4 p.m. Berkner Hall. Ken Evans Lutterodt of the National Synchrotron Light Source Department will talk on "Breaking the Barrier Toward Nanometer X-ray Resolution."

Wednesday, 10/31: 429th Brookhaven Lecture
4 p.m. Berkner Hall. BNL Historian Robert Crease of Stony Brook University will talk on "How Big Science Came to Long Island: The Birth of Brookhaven Lab."
All are welcome to these two free lectures, open to the public.

Electrochemistry: Water Into Fuel (cont'd)

"I believe that the reaction occurs by ruthenium-mediated electron transfer from water molecules bound to the metal centers to the quinone ligands," Muckerman continued. "These electron transfers are initiated by proton transfers from the bound water moieties to the aqueous solution. The ruthenium atoms maintain the same charge state during the entire catalytic cycle, indicating that this catalyst works in a totally different way than the other catalysts."

The work was supported by a DOE Hydrogen Fuel Initiative program entitled "Catalyzed water oxidation by solar irradiation of band-gap-narrowed semiconductors," led by Fujita as principal investigator. This result could open up a new direction for designing future catalysts.

— Karen McNulty Walsh

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday and Friday, October 25 and 26, and Wednesday, October 31, to answer employees' questions about financial matters. The consultant will help you: understand the importance of protecting assets against inflation, find the right allocation mix for you, and more. For an appointment, call Suzanne Leone, (866) 842-2053, Ext. 4601.

Fidelity Investment Counseling, 10/24

A Fidelity Investment representative will be at the Lab on Wednesday, October 24, to hold sessions with individual employees interested in learning more about their retirement-savings and investment options. Schedule one of the 30-minute appointments by calling (800) 642-7131.

October: BNL's Healthfest Month

Healthfest, BNL's annual month of health, fitness and safety celebrations, is well under way this October. All the Lab community is encouraged to take responsibility for personal health, fitness and safety, by taking part in fitness events, safety demonstrations, raffles, and the ever-popular health, safety and fitness fair.

Healthfest is sponsored by Brookhaven Science Associates, and co-chaired by Denise Dimeglio and Michael Thorn through the Human Resources & Occupational Medicine Division. Register for the bike, run, and swim events at <http://intranet.bnl.gov/healthfest/> or by calling Thorn, Ext. 8612.

Remaining Healthfest Events

Tuesday, 10/9, Noon-1 p.m.

Talk on "Shedding New Light on Cancer, Prevention and Detection," by Julia Keany Hodorowski, RN. Berkner Hall

Thursday, 10/11, 11 a.m.-2 p.m.

Massage Day. Call Ext. 8612 for an appointment for a 10-minute massage in Berkner Hall Room B

Table Tennis Tournament, 5-9:30 p.m. Rec. Hall, Bldg. 317. All levels of experience welcome. Register at pingpong-L@lists.bnl.gov

Friday, 10/12, noon - 1 p.m.

Mountain Bike Ride, Gazebo by the Ball Field

Friday, 10/19, noon - 1 p.m.

5-kilometer Fitness Run (rain or shine), Biology Dept., Bldg. 463. Run counts as first half of the biathlon

Monday, 10/22, Noon-1 p.m.

Fitness Open House. Tour gym and pool in Bldg. 478

Tuesday, 10/23, 11 a.m.-2 p.m.

Health, Fitness & Safety Fair in Berkner Hall. Displays, info, screenings for cholesterol, glucose, height, weight and blood pressure); • drinking water tasting test, home-water sample testing, • try out and order personal protective equipment and play the ISM "Wheel of Fortune" game

Wednesday, 10/24, 11 a.m. - 1:30 p.m.

400-Yard Swim, Bldg. 478 Pool, for all 18 and older

Friday, 10/26, 11 a.m. - 1 p.m.

800-yd swim, (timed) for those 18 and older. Swim counts as second half of the biathlon.

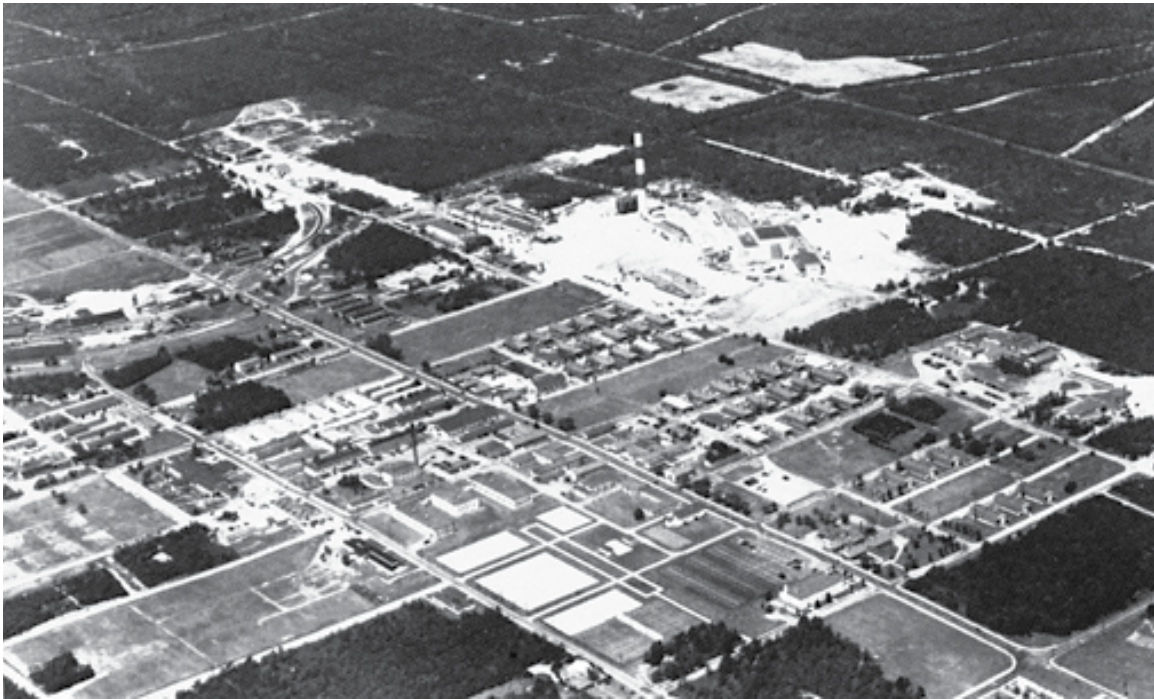
Hospitality, ESOL Start Knitting, Crochet Club

The BNL Hospitality Committee and English for Speakers of Other Languages program invite all to the Recreation Hall in the apartment area, on Tuesdays, 2-4 p.m., to sit, knit, crochet, talk and enjoy movies. Children are welcome. You don't know how to knit? Don't worry! We'll give lessons in the basics. For more information, contact Su Yen Chae, suyenchae@yahoo.com, 344-1051.

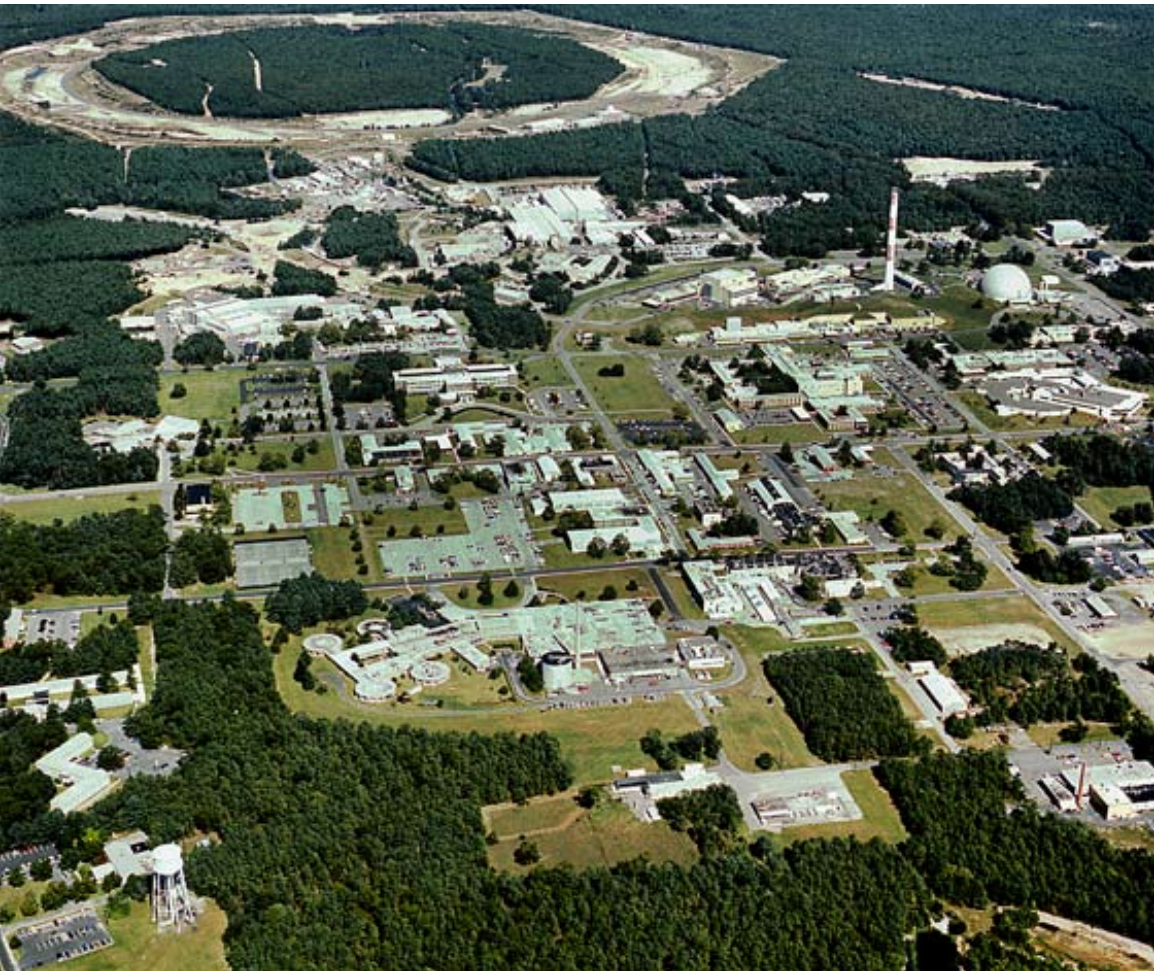
Then & Now, Aerials of BNL, Part II

These aerials of the BNL site are from 1947, 1989, and 2007. Have fun in comparing them! It is not easy to miss the Center for Functional Nanomaterials in the 2007 view, and the new Research Support Building is far left with the Science Education building beside it. Noticeable changes in the 1989 scene are the giant underground ring tunnel built for ISABELLE that became the magnificent foundation for the Relativistic Heavy Ion Collider, and the National Synchrotron Light Source (far right, upper center). Check last week's 1957 and 1969 aerials also.

1947 E0070147



1989 CN 10-51-89



2007 D0940907



Symposium, Reception, 10/19 Celebrating 60 Years of Discovery at BNL

As part of its 60th anniversary celebration, on Friday, October 19, BNL will host a full-day symposium for employees and others interested in hearing renowned scientists speak about past and current developments in fields in which the Lab has been and continues to be a pioneer. In Berkner Hall, talks on topics ranging from nuclear and particle physics to neuroimaging, nanoscience, climate change, and energy will be held 9 a.m. -5 p.m., followed by a celebratory reception to which all are invited.



Arrivals & Departures

— Arrivals —

George Chanady NSLS II
Mircea Cotlet CFN
Donald Dohan NSLS II
Daniel Feeley Plant Eng.
William Gash NSLS II
Robert Gatti NSLS
Sung Won Kim Medical
Gyanendra Kumar Biology
Fanglei Lin Physics
Stephanie Majewski Physics
Brian Martin C-AD
James Milligan E&WM Srvcs.
Birol Ozturk CFN
Gregory Soye Physics
Gary Stevens ITD
Lisa Whitehead Physics
Philip Zeo ITD

— Departures —

Marco Beleggia CMP&MS
Kuo-wei Huang Chemistry
George Hughes Rad. Contr.
Thomas Lappi Physics
Michael Lowry Physics
Mark Miller Env. Scis.
Lisa Marie Ramirez Env. Scis.
Andrew Sandorfi Physics
Carol Scarlett Physics
Richard Thomas Magnet

CALENDAR

— THIS WEEKEND —

Friday, 10/5

Talk on School Success
Noon. Berkner Hall, Room B. Joseph Connolly on "Great Expectations, Strategies for School Success," including accessing special services for your child, bullying, etc. Contact Linda Dipierro, Bldg. 490, OMC, or dipierro@bnl.gov.

BSA Lecture: Mars Rover Mission
4 p.m. Berkner Hall. Steven Squyres, a scientist from the Mars Exploration Rover Mission, will give a BSA Distinguished Lecture on science results from the mission. All are welcome to this free talk. Visitors to the Lab of 16 and over must carry a photo ID.

— WEEK OF 10/8 —

Tuesday, 10/9

***October: Month of Healthfest 2007**
Fitness events and more. See notice, p. 2. Register online, <http://intranet.bnl.gov/healthfest/> or call Co-chairs Denise Dimeglio, Ext. 2881, or Michael Thorn, Ext. 8612.

***Healthfest: Cancer Prevention Talk**
Noon-1 p.m. Berkner Hall. Julia Hodorowski, RN, will speak on "Shedding New Light on Cancer: Prevention and Detection." All welcome.

Thursday, 10/11

***Healthfest Massage Day**
11 a.m.-2 p.m. Berkner Hall, Room B. Ten-min. massage by licensed therapist. Call Ext. 4567 to register.

***Healthfest Table Tennis Tournament**
5-9:30 p.m. Rec. Hall, Bldg. 317. All levels of experience welcome. Register at pingpong-L@lists.bnl.gov.

Friday, 10/12

***Healthfest Mountain Bike Ride**
Noon-1 p.m. Gazebo near ball field. Bring your own bike & helmet, ride 8 miles or 5 miles.

— WEEK OF 10/15 —

Friday, 10/19

***BNL 60: Symposium, Reception**
9 a.m.-5 p.m. Berkner Hall. Day-long symposium celebrating BNL science, followed by a reception. All are welcome. See above, left.

— WEEK OF 10/22 —

Monday, 10/22

***Healthfest Fitness Open House**
Noon-1 p.m. Gym. Tour facility.

Tuesday, 10/23

***Health, Fitness, Safety Fair**
11 a.m.-2 p.m. Berkner Hall. See information on p. 2.

Wednesday, 10/24

***Healthfest Swim**
11:30 a.m.-1:30 p.m. Pool. For all 18 and older. See p. 2.

428th Brookhaven Lecture
4 p.m. Berkner Hall. Ken Evans Lutterodt of the National Synchrotron Light Source will talk on "Breaking the Barrier Toward Nanometer X-ray Resolution." All are welcome to this free talk, open to the public. Visitors to the Lab must carry a photo ID.

BERA News, Events

BERA offers a wonderfully varied list of trips and events to join — theater, shopping, art, sports — you choose. A trip to Philadelphia on 10/13, to see art and the famed Reading Terminal Market, is described on page 4. Check for other choices at the BERA Store, Berkner Hall, open weekdays, 9 a.m.-3 p.m., Ext. 3347, or www.bnl.gov/bera/recreation/events.asp.

Classified Advertisements

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

RESEARCH ASSOCIATE - Requires a Ph.D. in physics or a related discipline. Knowledge or experience in the development of storage ring insertion devices, especially cryogenic permanent magnet undulators (CPMU) in highly desirable. Requires excellent written and oral communication skills and the ability to interact effectively with a diverse group of scientists, technical staff, and users. Will work in the insertion device group for the NSLS-II project and help develop CPMUs to be utilized for NSLS-II storage ring. Will report to the NSLS-II Insertion Devices Group Leader. NSLS-II. Send CV to nsls2jobs@bnl.gov referring to Position No. PE4770.

PROCUREMENT COMPLIANCE AND POLICY MANAGER (M-1) - Requires a BA in business administration or in a related field (MBA and/or professional acquisition certification desirable), 15 years' experience in the Federal contracts environment, and detailed knowledge of the Federal Acquisition Regulations (or equivalent in DEAR or DFAR). Procurement experience in a large technical/scientific organization is highly desirable as is experience within the DOE complex. The position is responsible for monitoring the Acquisition Management System for compliance with BSA's prime contract, applicable laws and regulations, internal policies and procedures, and sound business practices. Responsibilities include maintaining procurement documentation, coordinating procurement self-assessment activities, developing training requirements, focal point for procurement audits and reviews, and liaison with DOE contracting officer on procurement issues. Must possess exceptional communications and interpersonal relationship management skills and operate with a high degree of customer orientation. Procurement & Property Management Division. Send resume to sobrito@bnl.gov, referring to Position No. NS4382.

FACILITY SUPPORT REPRESENTATIVE POSITION (P-7/P-9) - Minimum qualifications for P-7 include a BS degree in health physics/industrial hygiene/industrial safety or closely related technical field, five years of experience in ES&H, which includes one year of experience supervising ES&H technicians or professionals. Preferred qualifications include NRRPT registration, certification as a Hazardous Materials Manager (CHMM) or Certified Safety Professional (CSP). Minimum qualifications for P-9 include a BS degree in health physics/industrial hygiene/industrial safety or closely related technical field, seven years of experience in ES&H which includes two years of experience supervising ES&H technicians or professionals, and certification as a Health Physicist (CHP), or Industrial Hygienist (CIH), or safety professional (CSP), or Professional Engineer (PE). An MS degree in these areas or closely related technical field is considered an equivalent qualification to certification. Responsibilities include managing a crew of Radiological Control Technicians (RCTs) and responsibility for assisting the line organization in the full implementation of BNL ES&H Program requirements with an emphasis on radiological controls. Will provide ES&H support to the Laboratory's Environment & Waste Management Services Division (EWMSD). Send resume to morales@bnl.gov, referring to Position No. RM 4629.

HUMAN RESOURCES ASSISTANT (A-2) - Requires a high school diploma and at least six years of related experience, and excellent organizational and communication skills, both oral and written. Expertise in providing administrative support to include performing complex administrative office functions is required, as is excellent word processing skills, and computer proficiency in MS Word, Excel, and Outlook. Experience with PeopleSoft is highly desirable. Position will support the Records Group and will include extensive involvement in the PS HR system; PS queries: Excel spreadsheets; and assisting the Supervisor of Records with various administration duties. Successful candidate will be expected to perform this position with high accuracy with emphasis on confidentiality and discretion, using initiative, and good judgment, and be able to multi-task. Human Resources & Occupational Medicine Division. Send resume to dianah@bnl.gov, referring to Position No. DH4844.

Motor Vehicles

06 JEEP WRANGLER UNLIMITED - 6cyl., 4X4, 2dr., a/t, a/c, c/c, p/s p/w, am/fm/cd, excel. 6000 mi. \$16,999/neg. 903-3383.

02 DODGE 3500 - 4x4, ext cab, Cummins turbo diesel, sport pkg., 6-spd manual trans., tow pkg. 68K mi. \$20,000/neg. 897-6943.

01 FORD F350 - Crew 4x4 off rd Sht Bd Lariat 7.3 Turbo dsl a/t lthr alloys a/c p/w/l c/c bd lnr/cvr Warr. 87K mi. \$19,999/neg. 681-8634.

99 LAND ROVER DISCOVERY II - Loaded, v clean. 113K mi. \$7,000/neg. Peter, Ext. 4028 or 486-8199.

98 CHEVY S-10 PICKUP - v reliable, well maint, a/c, clean in & out. 4 cyl. 162K mi. \$1,900. 849-4705.

97 PONTIAC GRD AM - 4dr a/t MP3CD p/w a/c title+carfax(1G2NE52T4VM558353), KBB ~\$1800. 170K mi. \$1,500/neg. 974-1432.

97 DODGE GRAND CARAVAN - New tires, batt, a/c., 83K mi. \$2,900/neg. Rolf, Ext. 2305 or 286-2045.

94 FORD RANGER - 5spd. a/c, p/s, ext cab, cap, bed liner, runs well. \$1,750/neg. 813-6461.

94 HARLEY D. DYNA WIDE GLIDE - extra chrome, v clean, runs v well, Harley maint. 46K mi. \$8,500/neg. 897-6283.

94 ISUZU TROOPER - 6cyl, new shcks/batt./strtr, Aug. '07 insp., tires, 4wd, r/rack, LS delux 117K mi. \$2,200. Ext. 4553.

89 JEEP PIONEER - red, 6 cyl, 4 dr, 4wd, new tires, orig. owner, well maint'd. 200K mi. Vera, Ext. 5843 or 926-5963.

73 CHEVY SILVERADO 454 - restored. 35K mi. \$6,500/neg. 744-6910.

Boats

23' PRO-LINE WALKAROUND CUDDY - 1981, 200 Hp Evinrude - rebuilt, Trailer, one fam. since 1982. \$4,250/neg. 653-8251.

28' GRADY WHITE SEAFARER - 226 hdtop Yamaha 225 4 stroke 03 dbl axl trl loaded, \$39,500/neg. Bob, Ext. 5225, 587-7876.

Furnishings & Appliances

BEDROOM SET - queen platfm, mirror back, lights, 2 tall cbineets, armoire, dresser w/mirror, misty oak, \$375. Ext. 5026.

COMFORTER SET - king, reversible,dust ruffle & shams, pic avail., Cape Cod like print, \$25. Susan, Ext. 7235 or 399-7997.

COMPUTER DESK W/BKCASES - Corner desk- 5 1/2 ft. l. 2 Mtchg bkcases. Lt wd, gray top. Pic. avail. mb@bnl.gov. Ext. 3670.

CORNER DESK & PRINTER STAND - call for pic and dimensions \$50/both. Susan, Ext. 7235 or 399-7997.

DINING ROOM SET - Danish teak extendable table, seats 6-12, 6 chrs, buffet, china cabinet, all in mint cond. 929-5922.

FREEZER - Frigidaire 14 cu ft., Like new, Excel. cond.. \$150.00. Ext. 2269.

KITCHEN SET - all oak wood, table for 6, chairs, china cabinet, all mint. 929-5922.

REFRIGERATOR - GE- 18.5 cu. ft. Frost free. White. Grt cond. Ask \$150.00. 748-0933.

SECTIONAL SOFA - 5 pce w/sleeper. Beige w/pattern. Gd cond. \$200. 286-8356.

TWIN BED - Top line Serta Imperial mattress w/box sprg. 10 yr warr. Nearly new. Mvg sale. \$150/obo. Ext. 2143 or 879-3473.

WASHER - Sears Kenmore large capacity. Approx 7 yrs old. \$75. Kim, Ext. 7465.

WOODEN BOOKSHELF - 5 shelves. Oak finish. Never used, in box. Assembly required. \$40/obo. Ext. 2143 or 879-3473.

Audio, Video & Computers

GALILEO FS-120DX 4.7" REFLECTOR TELESCOPE - Inc. an 1 1/4" 6.8mm to 16mm zm eyepce & 3 elem. 3X Barlow lens. Full mvemnt Tripod. \$200 obo. Ext. 4748.

PRINTER - HP Deskjet840C-\$35; Epson Perfection3170 Photocanner-\$75; Compaq 13" mon w/mse/keybrd-\$25. Ext. 7647.

SCANNER/COPIER - HP Scanjet, flatbed, BW/color, photo/text, 2400 dpi, up to 11x18 in. Incl. OCR SW. \$75 obo. Ext. 2066.

Sports, Hobbies & Pets

BOWS - Two, 1-Compound w/case & attachments & 1-Re-curve 35 lbs pull. Ask \$50 for all. Peter, Ext. 5551 or 772-4751.

GITAR - FENDER - Mo.CD60 w/mic and hard case, mint cond. pics avail.Shop \$380, sell at \$280. Ext. 2158 or 849-4912.

GUNS - private collection, many kinds, call for detailed list. 587-7876.

Tools, House & Garden

GENERATOR - 4000 watt output, Two 120 & Two 210 volt outlets. Easy start eng. Excel. \$300 firm. Ext. 5551 or 772-4751.

LAWN MOWER - (1) Honda 21"needs minor work. \$25; (2) Honda 21", \$40. Robert, Ext. 4867 or 278-2192.

Wanted

2 CONCERT TCKTS - for Natalie MacMaster at Staller Center for the Arts on Saturday, Oct. 13. Ext. 2524.

BEAR MT OKTOBERFEST TICKET - Need 1 ticket for bus trip. Please call! Ext. 6044.

NEW BOOKS & CURRENT MAGAZINES - needed for various Hospitality & Resident areas - Laundry, Rec Hall, Dorms. Current material only. Christine, Ext. 5090.

OLD RIFLES - Lever action type working or not , fair \$\$ paid. Dean, 960-5994.

VIDEO TAPE TRANSFER - Need several VHS tapes (home videos) transferred to CD/DVD format. CherylI, Ext. 2852.

VINTAGE MINI BIKE - looking for 1970's and 1980's vintage mini bike prefer rupp roadster. Judith, Ext. 7430.

Lost & Found

SUNGLASSES - PERSCRIPTION - Found, with case. Linda, Ext. 7187.

Miscellaneous

ENGAGEMENT RING - Marquise Center Stone. 10 Rnd Diamonds w/20 Baguettes on sides. 14KT. Ask \$900. Ext. 2269.

Great Art/Great Market Bus Trip, 10/13 See Landscapes by Impressionist Renoir, Taste and Stock up at Philly Farmers' Market

Seats remain to be filled on a Great Art/Great Market trip organized by BERA for Saturday, October 13. See the 1865-1883 landscapes of Auguste Renoir, one of the most popular of the Impressionist artists, at the Philadelphia Museum of Art, which is also renowned for its collections of Pennsylvania German art, 18th century and 19th century furniture and silver by early Philadelphia and Pennsylvania craftsmen, and works by Philadelphia artist Thomas Eakins.

The group will then go by bus to another Philadelphia landmark: the huge, undercover Reading Terminal Market. The Harvest Festival will be in full swing, you can splurge on artisanal food-stuffs, sip beer or wine, eat worsts and Philly cheesesteak, check out one of the best second-hand book stalls you will ever find — and more. The cost of the bus and museum entry is \$35. Buy tickets at the BERA Store in Berkner Hall, Ext. 3347, weekdays, 9 a.m.-3 p.m. The bus will leave the Brookhaven Center at 7:30 a.m. and leave Philadelphia at about 4:30 p.m.

Brookhaven Retired Employees Association Talk, 11/15 Update on Suffolk's Senior Citizen Task Force

On Thursday, November 15, at 12:10 p.m. in the Hamilton Seminar Room, Suffolk County Legislator Steven Stern, the Chair of the Veterans and Senior Committee, will talk on the "Suffolk County-Wide Senior Citizen Task Force." All are welcome to this free talk. Visitors to the Lab or 16 and over must carry a photo ID.

BNL Music Club Sponsors Blue Grass Concert, 10/20 Featuring Buddy Merriam, Guest Dee Harris

A "Grand Ole Opry" concert featuring Buddy Merriam and Back Roads, with special guest Dee Harris, is scheduled on Saturday, October 20, at 8 p.m. in Berkner Hall. Sponsored by the BNL Music Club, the event is open to the public. Visitors to the Lab age 16 and over must bring a photo ID.

Buddy Merriam and Back Roads is an all-acoustic bluegrass-style band playing traditional favorites and original tunes on mandolin, banjo and guitar. They have performed on Country Music TV and at many Long Island venues, the Grand Ole Opry, Nashville, and the kick-off for the New York City Marathon, and appeared to rave reviews abroad. Dee Harris is a self-taught blues guitarist, songwriter, and vocalist who plays a mixture of Appalachian, Celtic, and classical Indian music.

Tickets are \$15 each if purchased in advance at the BERA Store in Berkner Hall, or \$20 at the door on the night of the show.

Wanted: BNL Art, Crafts for Fall Show, 11/19-21

BNL artists, photographers, sculptors, and crafters — your most beautiful work is needed for the BNL Art Society's upcoming Art and Crafts Show to be held at Berkner Hall, Monday to Wednesday, November 19-21, 11:45 a.m.-1:30 p.m. An evening reception with refreshments will be held on Monday, November 19, 5-7 p.m.

BNL employees, retirees, facility users, guests of BNL, and family members 15 years and older, may all contribute. More than one piece may be entered by an exhibitor, to be shown as space permits. Exhibits for the show must be brought to Room C, Berkner Hall, the afternoon of Friday, November 16, from 2 p.m. to 4:30 p.m.

NOTE: To be included in the catalog, list the following information for each work entered and return it by Monday, November 12, to Bob Chrien, Bldg. 510A, or (better yet!) e-mail the information requested below to chrien@bnl.gov. We need your name, home phone, BNL contact name if it is not you, BNL phone ext., type of art or craft (painting, pottery, etc.), title of work if there is one, brief description (material, size, etc.). Caution: This year, our hearts will be of stone. If you miss the deadline, your work may be exhibited, but you will not be in the program, so please, send in the information on time.

IRONING BOARD & IRON - Used one month only. Panasonic professional iron. \$40/obo for pair. Ext. 2143 or 879-3473.

KEY LOCKER - For 30 keys. Asking \$10. Peter, Ext. 5551 or 772-4751.

Yard & Garage Sales

BROOKHAVEN HAMLET - multi-family, Sat., Oct. 6, Post Morrow Foundation, 16 Bay Rd, 9-5, to benefit Fire Place History Club.

HOLTSVILLE - 10/6-10/7, 9-4, 33 Washington Ave., multi-family: clothes, collectables, housewares, elec., more! 793-7080.

PORT JEFFERSON - Multi-family, Sat. 10/6, 9-5. 15, Cove La, Belle Terre gates, Rt. on Old Homestead, Rt. on Cove. 928-5185.

SOUND BEACH - Multifamily, 10/13 only, 27 Floyd Bennett Dr off No. Country Rd, furn, baby items, dishes & more. Ext. 7647.

WADING RIVER - mving sale Oct. 6-7, 10-4, 10 Fawn Meadow Path, dining & kit. sets, server, coffee table, misc. 929-5922.

For Rent

PORT JEFFERSON - charming 2BR, 2 BA house. Furnished, kit., den, LR, screened porch, W/D. Sorry, no smoking, no pets. Utilities included. \$1,900/mo. 928-5185.

RIDGE - lg one br apt lg kit, sm l/r full bath pvt ent. storage avail smoking and cats ok \$950/mo. Keith, 939-3326.

ROCKY POINT - 1-bdrm. apt., kit., l/r, bath, pvt. driveway/ent., no smkg/pets, 1 mo. sec., all utilities except electric. \$795/mo. Ron or Kim, 821-3287.

SHIRLEY - 1 rm for student, microwve kitnet, furn, bath, sep ent, tv, elect, cabl wireless incl, 1mo sec, no smkg/pets, \$600/mo. Also: 1 rm for student, stove kitnet, furn, tv, heat, cable, elect, wireless int, incl 1mo.sec, 5min to stores,15 to Lab, no smkg/no pets. \$650/mo. Ext. 8321.

SOUND BEACH - Spacious one bdrm apt. Living-rm, eat-in-kitch, new bathroom. 2 months security. \$950/mo. 748-3693.

For Sale

BELLPORT - 4-BR. ranch, 2 bth, l/r w/dble opening fp to den, d/r, elk, oak flrs, screened deck on priv. yard, laundry rm, fin. bsmt: w/4th BR, bar, full bth, 2 rms; gar., 2 sheds, sprinklers, gt. cond. \$425,000; 949-7797.

BLUE POINT - Col., 5 bdrm. or poten. Mthr/Dghtr, 2 bath, l/r, d/r, kit., bsmt./crawl space, porch, 1.5 car gar., fen. yd., low taxes. \$429,000/neg. Ext. 5025 or 286-1540.

EAST MORICHES - Ranch, 3 bdrm, 2.5 bath, kit, l/r, f/p, fin. bsmt, covered porch, patio, 1/2 acre, skylights, appl. Cul-de-sac, low taxes. \$415,000. 882-0519.

MEDFORD - 6 rm Cape Cod, 2-car gar, 100x200; full bsmt \$400/neg. 325-0348.

BSA Noon Recital Di Wu, Pianist, 10/10



On Wednesday, October 10, at noon, in Berkner Hall, pianist Di Wu will play transcriptions by Liszt and others, that count among the most challenging works in piano literature.

Among Wu's honors are first prizes at the 2005 Hilton Head International Piano Competition and the 2000 Missouri Southern International Piano Competition, where she returned to give a worldwide broadcast recital the following year. Wu's solo debut was given in Weill Recital Hall at Carnegie Hall in 2005. She has performed with the Pittsburgh Symphony Orchestra, with the National Symphony Orchestra in the Kennedy Center, and twice with the New York Pops in Carnegie Hall. Wu, who studied under Gary Graffman and Yoheved Kaplinsky, is currently in the Artist Diploma program at The Juilliard School under the guidance of Joseph Kalichstein and Robert McDonald.

BSA Noon Recitals are free and open to the public. Visitors to the Lab or 16 and over must carry a photo ID.

Defensive Driving Course In Two Parts, 10/15 & 18

The six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on Monday and Thursday nights: October 15 and 18 in the Brookhaven Center South Room, 6 p.m.-9:15 p.m.

The course, at \$38/person, is open to BNL, BSA, and DOE employees, facility-users, and their families. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Include your phone number. For more information, call Sarah Wiley, Ext. 4207.

MEDFORD - Update 3 bdrm. Condo, Gt location on 6th Hole of golf course. Oversized patio. MLS# 2004640 \$319,000/ neg. Ext. 3995.

SHOREHAM - 4-dbrm. Colonial, 2.5 bath, l/r, formal d/r, fin. bsmt, lg kit, den w/fp, 2 car gar, SWRS. \$569,000/neg. Don, 821-3320.

SOUTH ROYALTON, VT - 2 homes w/3.5 acres, w/furn., +extras, priv., 1st: 2 bdrm, 1 bath, finbsmt, gar., wbs, w/d; 2nd: 1 bdrm, 1 bath, bsmt, washer, wbs, pics avail \$330,000/neg. Ext. 7125 or 631-466-8637.

W. PALM BEACH, FL - one bdrm condo, 1 bath, completely redone cabinets, appliances, etc. \$46,500. 516-375-7330.

In Appreciation

Thank you to my friends & co-workers for the wonderful sendoff at my retirement luncheon. It was a memorable occasion that I will never forget. A special thanks to Debbie Reynolds for all efforts in planning the affair. — George Hughes

To my friends and co-workers, thank you for the wonderful luncheon and generous gift. I will truly miss the friendships I have formed during my 13 years at BNL. The memories I have will be treasured. I wish you the best. — Laurie Pearl