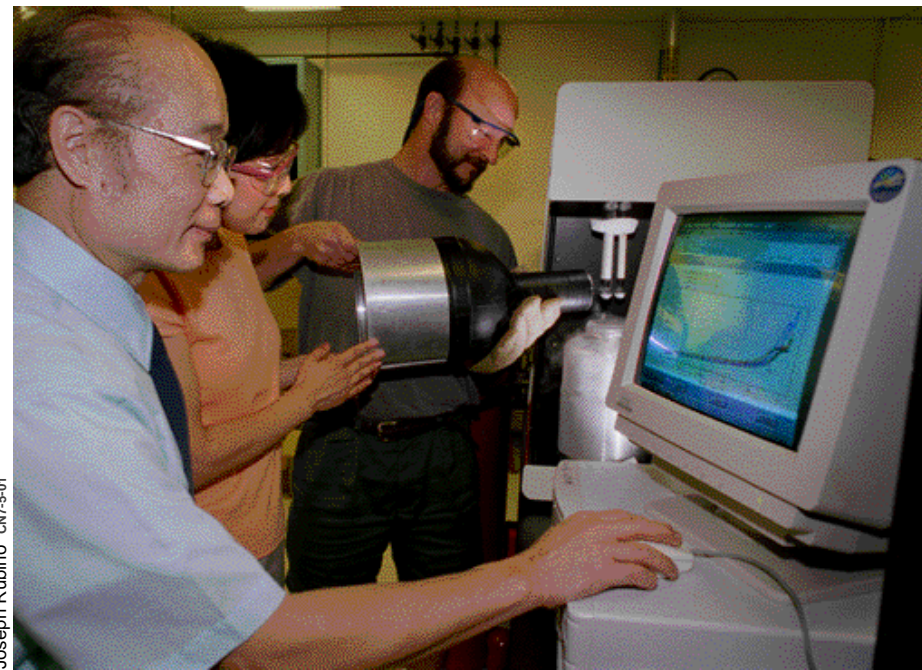


BNL, Caithness Company Win R&D 100 Award New Technology Retrieves Silica From Geothermal Brine



Mow Lin (left), Energy Sciences & Technology Department (ES&T), who, with BNL's Eugene Premuzic (retired) and Caithness researchers, invented the new, award-winning silica-recovery process, checks the surface and pore properties of silica on his computer. Richard Wilke (right), ES&T, together with Wei-Min Zhou (center), ES&T, pours liquid nitrogen into a machine that uses gas absorption to measure silica properties.

Joseph Rubino CNR-5-01

BNL, in collaboration with Caithness Operating Company of Reno, Nevada, has won a 2001 R&D 100 Award for developing a technology to recover commercial-quality silica from geothermal brine, a by-product of geothermal energy production. Retrieving this valuable product from brine, which is generally disposed of as waste, results in cheaper energy production and potential new uses for the recovered silica.

R&D 100 Awards are given annually by *R&D Magazine* to

the top 100 technological achievements of the year. Typically, these are innovations that transform basic science into useful products. This year's awards will be presented at Chicago's Museum of Science & Industry on October 4.

Secretary of Energy Spencer Abraham said, "I'm proud of the award-winning work done at the department's Brookhaven National Laboratory. This accomplishment demonstrates the value of government-funded research to the nation."

Mow Lin of the Energy Sciences & Technology Department, who invented the new silica-recovery process with retired BNL scientist Eugene Premuzic and Caithness researchers, said, "Our new process allows geothermal power to be more cost-competitive through lowered production costs. It may lead to new industries — and therefore, employment — in states rich in geothermal resources."

According to *Renewable and Sustainable Energy Reviews* (Volume 1, 1997), about 0.4 percent

of the world's electricity is derived from geothermal energy. Also, parts of the western U.S. and other areas of the world use geothermal energy for heat.

But the machinery that allows this environmentally friendly energy source to be used is under constant attack from the heat, pressure, and chemicals contained in geothermal brine. The new process helps alleviate some problems.

Maintenance Savings

When super-hot, super-high-pressure geothermal brine is pumped from the ground, the pressure lessens and steam forms. The steam is used to drive turbines to make electricity. After this "flash process," the brine is reinjected into the system to be recycled.

"During the flash process, the brine cools a few degrees — just enough to precipitate out some of the silica," explained Lin. "This silica clogs and damages the reinjection well and pump, which are very expensive to maintain or replace. Using the new technology, the brine will be cleansed of most of the silica before it is reinjected, which will reduce maintenance costs."

Purest Silica Produced

In addition, Lin commented, the silica recovered using the

(continued on page 2)

RHIC & AGS Users' Meeting Next Week 8/9 & 10

The Relativistic Heavy Ion Collider (RHIC) and Alternating Gradient Synchrotron (AGS) Annual Users' Meeting will be held on Thursday and Friday, August 9 and 10, in the Physics Department's Large Seminar Room, Bldg. 510, on Thursday, and Berkner Hall on Friday.

Topics to be covered will include: the RHIC program and results, theory, new physics at the AGS, a look to the future, a poster session, and a Users' Group business meeting.

A banquet will be held on Thursday evening at the Brookhaven Center. The fee is \$30 per person, and spouses and friends are welcome. Register by Thursday, August 2, making checks payable to Brookhaven Science Associates and mailing them to the RHIC & AGS Users' Center, Bldg. 355.

For registration and additional information, contact the RHIC & AGS Users' Center at userscenter@bnl.gov, at Ext. 5975, or on the Web at www.bnl.gov/userscenter/.

Experimental Microbeam Radiation Therapy Passes Latest Test, Draws Nearer Ultimate Goal: Treating Brain Tumors in Children

An experimental form of radiation therapy, known as microbeam radiation therapy (MRT), and now under development at BNL, appears to be less damaging to healthy brain tissue than traditional radiation therapy.

In a study appearing in a recent issue of *Cellular and Molecular Biology*, BNL scientists present evidence that the brains of embryonic ducks, studied as a model for human infants, have a remarkably higher tolerance to microbeam radiation than to conventional radiation beams.

The therapy has not yet been tested in humans and is probably years away from clinical application. But Avraham Dilmanian of the Medical Department, who is leading the studies, says, "The hope is that, eventually, we will be able to use microbeam arrays to destroy pediatric brain tumors, or at least significantly delay their growth, without damaging as much surrounding tissue as conventional, broad-beam x-rays do."

Other BNL collaborators who are or have worked with Dilmanian on this project include: Gerard Morris, Géraldine Le Duc, Xiaoling Huang, Baori Ren, Tigran Bacarian, Itzhak Orion, Pravin Sathé, and Xiao-Ye Wu of the Medical Department, and Zhong Zhong of the National Synchrotron Light

Source (NSLS) Department. The scientists are looking for a treatment for brain tumors in infants and young children. Because developing brains are particularly susceptible to radiation damage, conventional radiation therapy cannot be used on children before the age of three and is used judiciously afterward.

In MRT, x-rays are confined to very thin slices of planar beams arranged in parallel arrays with spaces in between — as are the parallel panels of open vertical blinds. As a result, the x-rays irradiate only about one-third of the tissue and the areas between the beam slices receive very little radiation.

The technique was first developed at the NSLS in the early 1990s. It is still under investigation here and at the European Synchrotron Radiation Facility in Grenoble, France. Unlike x-ray sources used in clinical radiation therapy, only high-intensity synchrotron sources can be used to confine the beam to the extremely narrow slices with very high dose rates that are needed for MRT.

In the study, the duck embryos treated with microbeam radiation fared much better than those treated with broad-beam radiation. "The ducks' brains were about ten times more tolerant to the microbeam radiation than the broad beams," Dilmanian says.

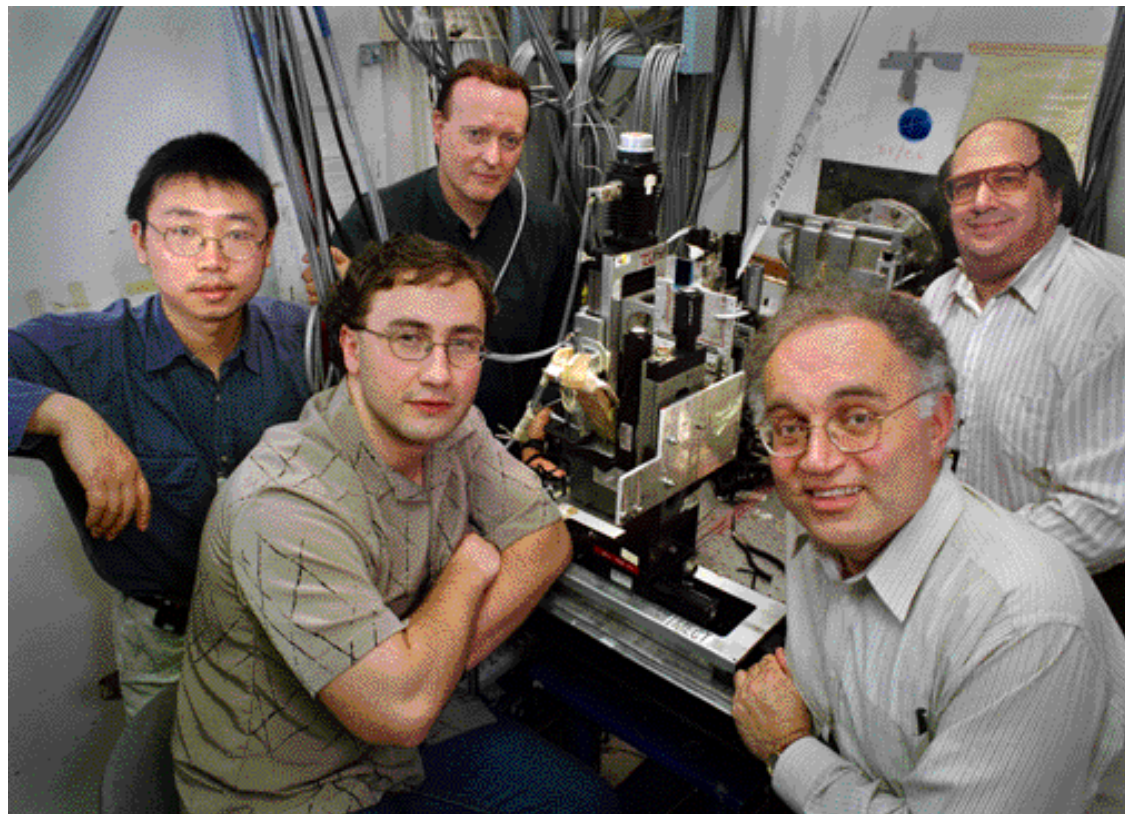
"Even when the un-irradiated areas between the microbeam slices are taken into account, that is, when the dose is averaged over the entire area treated, microbeams still have an approximately threefold advantage

over broad-beams in terms of normal brain tissue tolerance," he says.

Previous experiments by Daniel Slatkin, retired from Medical; Jean Laissue, University of Bern, Switzerland; the late Per

Spanne, formerly of the Department of Applied Science; Dilmanian and others have shown that these same microbeam doses can destroy or slow the growth of highly malignant

(continued on page 2)



Seated around the experimental microbeam radiation therapy (MRT) bench at the NSLS's X17B1 beam line are the current MRT team: (from left) Nan Zhong and Renat Yakupov, both of the Medical Department; Gerald Morris, University of Oxford and BNL; Avraham Dilmanian, Medical; and Eliot Rosen, Long Island Jewish (LIJ) Medical Center. Not in the picture are: Louis Peña and Tigran Bacarian, Medical Department; and Alexander Fuchs, LIJ.

Roger Stoulenburgh CN5-142-01

Calendar of Laboratory Events

- The BERA Sales Office 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 M. Kay Dellimore, Ext. 2873.
- Additional information for Hospitality Committee events can be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building (Rec. Bldg.) is located in the apartment area.
- Contact names are provided for most events for more information.
- Calendar events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Mondays: Arts & Crafts

4-5 p.m. Rec. Bldg. \$5 per month covers materials. Marcia Leite, Ext. 1040.

— Hospitality event

Tuesdays: Welcome Coffee

10-11:30 a.m. Rec. Bldg. Newcomers meet friends. Mimi Luccio, 821-1435.

— Hospitality event

Tuesdays: Yoga Practice Sessions

12-1 p.m., Brookhaven Ctr. North Room. Free. Ila Campbell, Ext. 2206.

Wednesdays: Cooking Exchange

5-6 p.m. Rec. Bldg. \$1 per evening covers the cost of ingredients. Marcia Leite, Ext. 1040.

— Hospitality event.

Wednesdays: On-Site Play Group Now Meets at Playground

9:30 a.m.-11:30 a.m. Playground in Apt. area, weather permitting. Parents meet while children play. Bring drinks, snacks. Free. Monique de la Beji, 399-7656. Lisa Fugleberg, 205-5128. — Hospitality event.

Wednesdays: Weight Watchers

noon-1 p.m., Brookhaven Center South Room, Mary Wood, Ext. 5923.

Mon., & Thurs.: Cardio Kickboxing

\$5 per class. Mon. & Thurs. from noon-1 p.m. in the Gym. Thursday evenings from 5:15 to 6:15 p.m. in the Brookhaven Ctr. Registration is required. Contact, Mary Wood, Ext. 5923, or wood2@bnl.gov.

— NEXT WEEK —

Friday, 8/10

GLOBE Meeting

For more information about BNL's gay and lesbian club, and the location of this month's meeting, contact Mike Loftus, Ext. 2960, or Chris Gardner, Ext. 4537.

*BERA Summer Bash

6 p.m., Rock Hill Country Club in Manorville. \$15 per person includes hot buffet from 7-8:30 p.m., DJ, and cash bar. Contact Andrea Dehler, Ext. 3347; John McCaffrey, Ext. 2075; Lou Nieves, Ext. 4897; or Laurie Pearl, Ext. 5520.

— WEEK OF 8/13 —

Tuesday, 8/14

Verizon Wireless Demo

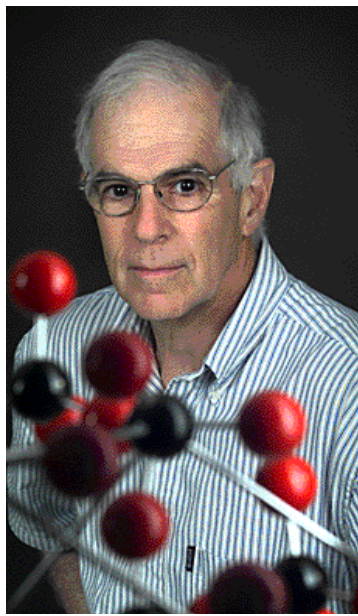
From 11 a.m. to 2 p.m. a representative will be in Berkner Hall presenting BNLers with special rates on wireless service.

Wednesday, 8/15

Divorced & Separated Support Group

noon-1 p.m., Berkner Hall, Room D. Mary Campbell, Ext. 4776, maryc@bnl.gov.

Stephen Shapiro: Neutron Science Director at BNL



Roger Stoulenburgh CNE-46-98

Stephen Shapiro, a senior physicist in the Physics Department, has been named BNL's Director of the Center for Neutron Science, effective May 1.

At BNL, neutron research was done from 1965 to 1997 at the High Flux Beam Reactor (HFBR), leading to advances in the understanding of superconductivity and magnetism. After the HFBR closed in 1997, BNL neutron scientists have been conducting experiments at a dozen facilities around the world and at the National Institute of Standards & Technology (NIST), Maryland, and the High Flux Isotope Reactor at Oak Ridge National Laboratory (ORNL), Tennessee.

"Neutrons are an important probe for research in condensed-matter science," said Shapiro, "and the Lab has made major contributions to that science."

He continued, "We would like to continue to be an active participant in this research and to attract distinguished neutron scientists to our staff and help train a new generation of scientists to do research at the Spallation Neutron Source (SNS), which is now under construction at ORNL."

When it is completed in 2006, the SNS at ORNL will be the most powerful spallation neutron-scattering facility in the world. BNL is one of six DOE labs that are designing and constructing the SNS.

Shapiro has started to develop strong links to institutions with neutron-scattering facilities, and he is establishing a scientific alliance with NIST for neutron-science measurements. He will also take the lead in relocating the U.S.-Japan triple axis spectrometer from the closed HFBR to ORNL's operating reactor.

Shapiro earned a Union College B.S. in 1963 and a Ph.D. from The Johns Hopkins University in 1969, both in physics. Then, for two years, he was a postdoctoral fellow at the University of Paris. In 1971, he joined BNL as a research associate, rising to senior physicist by 2000. As Associate Chair of the Physics Department from 1994 to 2000, he also headed BNL's solid state physics program.

— Diane Greenberg

R&D 100 (cont'd.)

new process is 99.9 percent pure — much purer than most silica on the market today.

Previous research at BNL by Lin and Premuzic focused on silica recovered from high-salinity geothermal brines that contain many impurities. These impurities may include iron, as well as other metal salts such as zinc and manganese, which have to be removed at high cost to produce marketable silica.

In contrast, the BNL-Caithness technology recovers silica from low-salinity brines that contain very few impurities.

The conventional process for producing silica involves fusing silica sand with alkali to make silicate. The alkali silicate is then neutralized with acid yielding precipitated silica. In the less expensive BNL-Caithness process, a specially developed chemical reactor precipitates the silica from the geothermal brine under specific conditions.

Silica is used widely as: a drying agent for products such as salt; a polishing agent for commodities such as toothpaste; a filler, extender or reinforcing agent for plastics, paper, paint and rubber; and a catalyst for refining oil. It also has applications in fiber optics and nanoscience.

Because the silica obtained using the BNL-Caithness process is so pure, new uses may be found for it, including chemical production. Also, having very pure and relatively inexpensive silica available may lead to refinement of existing products, particularly in nanoscale materials, such as chips for sub-micron electronic circuits.

The research for this successful process was funded by DOE's Energy Efficiency & Renewable Energy Program. BNL and Caithness are now taking steps to commercialize the process. — Diane Greenberg

Service Awards

The following employees celebrated BNL service anniversaries during the month of May 2001:

40 YEARS

Arnold J. Esper C-A

35 YEARS

Lillian S. Kouchinsky Dir. Office

25 YEARS

Jack M. Preses Chemistry
Robert J. Kennett En. Sci. & Tech.
Lawrence I. Kleinman Env. Sci.
Arthur J. Coone PPM
Brian D. Mayo PPM
Frederick C. Molone ... Central Shops
Richard A. Kayte Plant Eng.
James Yerry Emergency Services
Nancy M. Lofaro Budget
John F. Carew En. Sci. & Tech.
James L. Durham Plant Eng.

20 YEARS

Michael D. Mapes C-A

10 YEARS

Brenda R. Ward Staff Services
Steven Halderman Central Shops
Steven H. Stein Quality Mgmt.
Beth A. Schwaner Training
Michael P. De Phillips Env. Svcs.
Anthony F. Arno III C-A
George L. Yancy SSD
Christopher S. Congemi SSD
Albert L. Williams Plant Eng.
Tracey G. Fountaine SSD

'Neutrons & Magnetism'

A Symposium Today in Chemistry Celebrates Julius Hastings' 80th Year

All are invited today to a "Neutrons & Magnetism" symposium from 2 to 5 p.m. in the Hamilton Seminar Room of the Chemistry Department, Bldg. 555, to celebrate the 50-year-plus research career of Senior Chemist Julius Hastings, who retired from BNL in 1987.

Hastings, who is internationally recognized for contributions to neutron scattering, magnetism, and critical phe-

nomena, is also one of the patent holders for the design of the High Flux Beam Reactor.

After welcoming remarks from Lester Corliss, who had worked with Hastings on many experiments and retired from Chemistry in 1985, talks will be given by: Hanqin Liu, Zhongshan University; Robert Nathans, Stony Brook University; David Mukamel, Weizmann Institute, and Aldo Tucciaroni, University of Rome.



Mort Rosen 8-12-87

Microbeam Radiation Therapy (cont'd.)

brain tumors in rats, at doses that cause very little damage to the surrounding normal brain tissue. Furthermore, in those studies, the treatment was accomplished by irradiating the tumors from only one direction and in one treatment. This is in contrast to conventional radiation treatment, which is carried out from different angles and over as many as 40 sessions.

The scientists hypothesize that, in MRT, some of the endothelial cells — cells that line blood capillaries — survive in the interbeam regions. In normal tissue, these cells appear to replace the neighboring cells killed by the beam. But, in tumors, this recovery process may be impaired, so the

blood flow stops, and the tumor is starved to death.

The next step will be to investigate the biological mechanisms by which unidirectional MRT preferentially damages brain tumor tissue while it spares the normal brain tissue. Understanding these mechanisms is essential if MRT is to proceed toward clinical use.

This research was funded by DOE and the Children's Brain Tumor Foundation. Current collaborators include: Gerard Morris, Nan Zhong, Louis Peña, Tigran Bacarian, and Renat Yakupov of Medical, and Eliot Rosen and Alexander Fuchs of Long Island Jewish Medical Center in New Hyde Park, New York.

— Karen McNulty Walsh

In Memoriam

Patrick Borello, Instrumentation

Patrick Borello, a technical associate I in the Instrumentation Division, died on July 13. He was 54.

Borello joined Instrumentation as a senior technical specialist on April 10, 1989. He was promoted to Technical Associate II and Technical Associate I in 1990 and 1995, respectively.

Said Veljko Radeka, Instrumentation Division Head, "With Ron Angona, Pat helped establish an efficient, state-of-the-art facility for fabricating a great variety of developmental and non-standard printed circuit boards. It has been a marvel and a pride of Brookhaven that all the diverse equipment in this facility could be operated by these two people. Pat was an enthusiastic individual eager to undertake new projects and to help others."

Ronald Angona, a colleague and friend in Instrumentation, said, "For the past ten years, I worked with Pat, fabricating printed circuit boards for the Lab. He was very knowledgeable in the field, having had 25 years of experience before coming to BNL. He brought a great deal of outside knowledge to the job,

which he would always share. He will be dearly missed."

Among other work, Borello worked on circuit boards for the Relativistic Heavy Ion Collider (RHIC), RHIC detectors PHENIX and STAR, and BNL's part in the ATLAS detector being built for CERN, Switzerland. In 1994, he was awarded a Spotlight Award for extraordinary effort in response to the needs of the division.

Graham Smith, also of Instrumentation, commented, "Pat was a master of his craft. Nothing exemplifies this more than the meticulousness with which he fabricated a set of precision electrode boards for the division's most recent neutron detector project. We'll all miss his readiness to help and his easy-going manner."

Patrick Borello, a resident of Centereach, is survived by his wife Rona and sons Russell and Michael. — Liz Seubert



Roger Stoulenburgh CNE-46-98

New Web-Based Form For Event Planning

For those who plan BNL-sponsored events that will require computing or voice support from the Information Technology Division (ITD), ITD has created a Web-based form to help arrange these services.

Available at www.bnl.gov/itd/admin/event_questionnaire.htm, the form includes plans for networking and voice needs of conferences, symposiums, etc., that must be initiated before the event starts. ITD does not supply computer hardware or peripherals for any event.

Submitting the completed form officially notifies ITD and Christine Ronick, Staff Services, of the network and voice requirements for the event.

Send questions or comments about the form to Scott Bradley, Manager of Network Operations & Voice Services, Ext. 5745.

Arrivals & Departures

Arrivals

Noel D. Blackburn ERD
Margaret E. Harvey C-A
Jeanne M. Petschauer CIGPA
Daniel Van Der Lelie Biology
William A. Ward Medical
Shiwei Yu Medical

Departures

John A. Broadwater Biology
Dinko Franceschi Medical
Sue Ellen Gerchman Biology
Eloise K. Gmur CIGPA
Robert L. Harrington NSLS
Charles V. Karns C-A
Terri E. Kneitel Emergency Svc.
Henry G. Raimondo SSD
Wilton L. Virgo Chemistry
Albert J. Watson C-A
Hubert K. Zajonz Physics
Andrey I. Zheludev Physics

BERA Offers

Tickets and coupons for these and other events are available at the BERA Store in Berkner Hall, weekdays, 9 a.m.-3 p.m. For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Summer Bash Next Friday

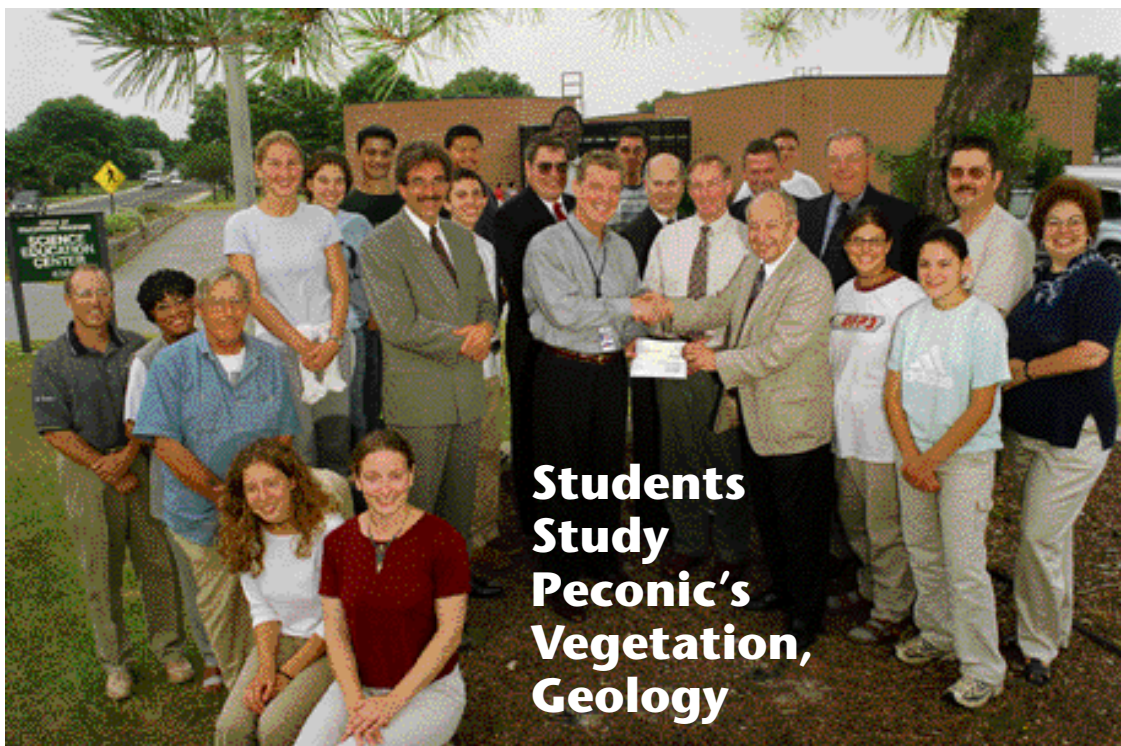
Join BERA's Summer Bash on Friday, August 10, at the Rock Hill Country Club, Manorville. The party will begin at 6 p.m. Tickets are \$15 per person and cover the hot buffet and DJ. There will be a cash bar.

Dinner/Casino Cruise, 9/14

BERA offers a dinner and casino cruise on Friday, September 14. Tickets are \$30 per person and include round-trip bus transportation to Freeport, a complete hot dinner buffet, \$10 in tokens, and the cruise. The bus will depart from Long Island Expressway exit 63 Park & Ride at 5:30 p.m. to meet the cruise ship, which leaves from Freeport at 7:30 p.m., returning to Freeport at 12:30 a.m.

Radio City Holiday Show

Buy tickets for the Holiday Extravaganza at the famous Radio City Music Hall in New York City. The BERA-sponsored bus trip takes place on Sunday, December 9. Tickets, at \$99, include orchestra seats for the noon show and bus transportation. There will be free time in the Rockefeller Center area to shop or snack. The bus will leave BNL at 9:30 a.m. and return at 5:30 p.m.



Students Study Peconic's Vegetation, Geology

Gregory Fess (center, left), BNL General Counsel, on behalf of Battelle and Brookhaven Science Associates, presents two checks to help fund the Summer Field Program to Salvatore La Lima, Suffolk County Community College (SCCC) President. Students in the program surround those instrumental in making it succeed, who include: (from left) John Bockino, SCCC; Renée Flack, Office of Educational Programs (OEP); John Black, SCCC; Kenneth White, Community Involvement, Government & Public Affairs; Richard Semple, SCCC; Steven Schrier, SCCC; Michael Holland, DOE Area Office; Brian Murfin, OEP Manager; Thomas Sheridan, BNL Deputy Director for Operations; Timothy Green, Environmental Services; and Louise Hanson, OEP.

The banks of the Peconic River on the BNL site became a science laboratory this summer, when two undergraduate students from the University of Massachusetts and the University of Puerto Rico and nine Suffolk County high school students learned scientific field methods first-hand there.

The students studied the vegetation and geology of a portion of the Peconic and examined the forest-fire potential of surrounding woodlands.

The students were participating in the Suffolk County Community College (SCCC) and BNL Summer Field Program, sponsored by the Center for Community Research at SCCC, and the BNL Office of Educational Programs (OEP). Additional support for the program came from Battelle, and the U.S. Fish & Wildlife Service as

part of the DOE Upton Ecological Research Reserve management activities, and N.Y. State Senator Kenneth LaValle.

According to John Black, a teacher in the program and Research Coordinator for SCCC's Center for Community Research, the students found very few non-native plant species along the area of the Peconic that they studied. This is a healthy sign for the environment, since non-native plants can be invasive, crowding out native plants that are best for maintaining ecological balance.

The students' data will help BNL in making plans for portions of the river where cleanup may become necessary. The Central Pine Barrens Commission and the U.S. Fish & Wildlife Service will also use the students' data for their environmental studies. — Diane Greenberg

Discount Tickets For Balloon Festival

The BERA Sales Office in Berkner Hall has discounted tickets to Waldbaum's Balloon & Music Festival, to be held at Calabro Airport, William Floyd Parkway, Friday to Sunday, August 17-19. On Friday, 1-10 p.m., see the Balloon Glow, hear Jethro Tull; on Saturday, 6 a.m.-10 p.m., hear the Doobie Brothers, see Grucci fireworks; on Sunday, 6 a.m.-10 p.m., enjoy the WBLI Summer Concert Bash. Buy BERA's tickets at \$10/adults (\$15 at gate), \$5/children of 4-12 (\$10 at gate).

Dosimetry badges will be exchanged today, Friday, August 3. Remember to place your badge in its assigned rack space before leaving work today.

Upton Nursery School Registration Starts Now For September 2001



Many BNL parents who want to be involved in the schooling of their three- to five-year-old children choose to register their child to the Upton Nursery School — a non-profit, cooperative preschool operating three mornings a week.

Classes are taught by a certified New York State teacher with an M.S. in elementary education and extensive early childhood teaching experience. Approximately once a month, each child's parent assists the teacher, which involves parents in their children's education and helps keep costs low.

BNL parents come from all corners of the world, so the school specializes in welcoming children of all cultures in an informal, supportive environment. Speaking English is not a requirement — the focus is on activities that promote language and social development through hands-on learning, and group cooperation and sharing.

Classes are held from 8:30 to 11:30 a.m. in the Recreation Building in the apartment area, on Mondays, Tuesdays, and Thursdays, September-June. Children must be toilet trained. Tuition is \$110 per month, plus a \$25 registration fee, and an additional \$25 fee for parents who cannot be a "helping" parent or find a substitute.

For more information or to register your child, contact Employee Relations Manager Susan Foster, Ext. 2888. If you do not speak English, you will have the call answered by someone who can communicate with you.

Donations welcome

The Upton Nursery School has been run by volunteer Lab parents since 1965. The fees are kept as low as possible, but expenses continually rise. Therefore, parent alumni or others interested in keeping the tradition of the Upton Nursery School viable by donating to the cause may send checks made out to Upton Nursery School, to P.O. Box 324, Upton, NY 11973.

Call For Bowlers

Bowlers are needed for the 2001-2002 season of the BNL Purple and White mixed league. Send team or individual bowler information to Fern Simes, Ext. 3969 or simes@bnl.gov. Bowlers do not have to be BNL employees.

A captain's meeting will be held on Friday, August 17, at noon in the Orange Room, Bldg. 510.



Calendar

(continued)

Thursday, 8/16

Brookhaven Advocacy Council Meeting

Open Session, 12:30-1 p.m., Berkner Hall, Room C. Nancy Warren, Ext. 7548.

BERA Bridge Club

7 p.m., Berkner Hall cafeteria Morris Strongson, Ext. 4192, mms@bnl.gov.

Friday - Sunday, 8/17-19

***Balloon & Music Festival**

BERA offers discounted tickets for the Waldbaum's Balloon & Music Festival at Calabro Airport. Tickets available in the BERA Sales Office, weekdays, from 9 a.m. to 3 p.m. Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Saturday, 8/18

Last Chance : Foxwoods

Bus leaves Brookhaven Center at 8:15 a.m. and returns at approximately 8:15 p.m. \$39 per person includes bus, SeaJet Ferry, \$10 food voucher, two free Keno plays, and a \$10 match table play. Pre-paid reservations can be made at the BERA Sales Office, weekdays, 9 a.m.-3 p.m.

— WEEK OF 8/20 —

Wednesday, 8/22

Apheresis Blood Drive

Brookhaven Center. BNL volunteers from the previous apheresis drive are scheduled to donate platelets. Sue Foster, Ext. 2888, or foster2@bnl.gov.

— WEEK OF 8/27 —

Monday, 8/27

IBEW Meeting

6 p.m., Knights of Columbus Hall, Railroad Ave., Patchogue. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

Wednesday, 8/29

Divorced & Separated Support Group

noon-1 p.m., Berkner Hall, Room D. Mary Campbell, Ext. 4776, maryc@bnl.gov.

Thursday, 8/30

BERA Bridge Club

7 p.m., Berkner Hall cafeteria Morris Strongson, Ext. 4192, mms@bnl.gov.

— WEEK OF 9/10 —

Wednesday, 9/12

Divorced & Separated Support Group

noon-1 p.m., Berkner Hall, Room D. Mary Campbell, Ext. 4776, maryc@bnl.gov.

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Please enter the information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.

Sure-Fire Anti-Fire Guidelines

In dry weather, starting a fire is easy. Wildfires such as those that destroyed large areas of land around Los Alamos and Hanford, as well as the Sunrise Highway fire that swept Long Island a few years ago, are a constant concern in dry, forest-like areas such as BNL.

All members of the Lab community who participate in activities using the on-site ballfields and campgrounds are therefore asked to follow these guidelines:

- When using on-site barbecues, deposit the ashes into the 20-gallon metal pails provided at each location.
- Do not allow flames outside the grill.
- Using grills when fire-hazard conditions exist (as announced via e-mails or through the media) will be prohibited.
- If you smoke, extinguish smoking materials by grinding them out completely or dispose of them in vehicle ashtrays.
- Do not park vehicles over tall grass.
- In an emergency by the ballfields or campgrounds, dial the on-site emergency extension, Ext. 2222, or 911, using the telephone located across Brookhaven Avenue north of the ballfields. From a cell phone, dial (631) 344-2222.

Last Day to Complete BNL's Mini Survey

Today is the last day to complete the BNL Mini-Survey.

All full- and part-time employees, and staff with term appointments are asked to complete the survey to express opinions on the progress made in areas targeted as a result of the 1998 Employee Opinion Survey. The survey is available on-line, on a secure server, at www.isrsurveys.org/bnl/. For more information, call Nauman Mirza, International Survey Research, (312) 828-9725.

Those who prefer to complete a paper survey may pick them up in the Diversity Office, Bldg. 185. For more information, call Lorraine Merdon, Diversity Manager, Ext. 3318.

Summer Sunday Tours Continue Through August 26
This Sunday, Tour BNL's Firehouse



If you wanted to be a firefighter when you grew up and/or have kids who do, then come back to the Lab this Sunday when the Fire-Rescue Group opens the engine bay doors to BNL's own firehouse, Bldg. 599, and the compartments of its various fire engines for an inspection.

Besides touring the firehouse, visitors may take a guided bus trip around the site, participate in the Whiz Bang Science Show, and view the Camp Upton Historical Collection. BNL's Summer Sundays begin at 10 a.m. and visitors must arrive before 3 p.m. The tours are free, open to the public, and no reservations are needed.

Softball Standings as of July 27

League E1		League M1	
Blue Jays	10-1	Happy Hour	10-1
Phaseout	9-2	Sting Rays	5-6
System	9-2	OER	4-7
Gas House Gorillas	7-4	Gourmets	3-8
Hammerheads	6-5		
Mesocyclones	4-7		
Survivors	4-7		
Hy Tech	2-9		
Scrambats	2-9		
Sure fire	2-9		
League E2		League M2	
Bombers	7-2	Hounds & Foxes	8-3
Medical	6-3	Guzzlers	8-3
Chemically Imbalanced	3-6	Ansky	7-4
Ten Samuri	2-7	Diamond Dawgs	5-6
		Jello Shots	3-7
		Here For The Beer	2-9

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 list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at www.bnl.gov/JOBS/jobs.html.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates. NS8431. STAFF ENGINEER (P-5) - Requires a bachelor's degree in engineering, hydrogeology, or equivalent capabilities, and

3-5 years pertinent experience. Responsible for groundwater-remediation-related field work, equipment design and development, test of equipment, operation and implementation of groundwater remediation systems and treatment plant operations, process study, groundwater investigations, report preparation, procurement, and contractor oversight. Maintains current knowledge of principles and techniques commonly employed in environmental restoration. Environmental Restoration Division.

DD2380. SR. ADMINISTRATIVE SERVICES ASSISTANT (A-3, 50 percent position) Requires an AAS degree, or the equivalent, proficiency in Word, excellent written and oral communication skills, and the ability to perform independently complex administrative tasks with changing priorities and deadlines. Familiarity with BNL systems and/or medical research a plus. Will perform administrative duties for the Office of Research Administration and provide secretarial support for the Institutional Animal Care and Use Committee. Director's Office.

DD2091. HOSPITAL SERVICES ASSISTANT (CW-2) - The Clinical Research Center is seeking a highly motivated individual to provide clinical/administrative support to the CRC professional staff during the conduct of clinical studies. Individual will act as receptionist for CRC, will perform appropriate clinical housekeeping tasks to maintain a clean and safe environment. Additional duties will include accompanying subject between central CRC location and satellite clinical facilities. A nursing assistant certification or equivalent working experience is preferred. Medical Department.