

DAS's Toshi Sugama Invents 'Surf-and-Turf' Coating To Protect Aluminum, Other Metals From Corrosion

Crab, shrimp, or lobster shells from the ocean and corn from the earth are the key ingredients of a new "surf-and-turf" coating for aluminum invented by Toshi Sugama of the Department of Applied Science.

The new, water-based coating protects aluminum and other metals from corrosion and moisture.

"And everything in this coating is harmless to humans and the environment," Sugama said. According to him, the new, environmentally benign coating is the latest payoff of 15 years of DOE investment in his basic research into "green" materials.

The coating resists saltwater damage for twice as long as conventional aluminum coatings. As a result, this coating has potential to extend the lifetime of helicopters — a feature which attracted additional funding from the U.S. Army Research Office.

As Sugama explained in the May 1999 issue of the *Journal of Materials Science*, a component called chitosan is extracted from crushed crab, shrimp, or lobster shells to make the base of the coating. Chitosan is then mixed in water with an electrolyte, dextrine polyacid, which is found in cornstarch.

"By using chitosan as a base for the coating, we use the same substance that shellfish use for protection against the corrosive action of salt water,"

Lobster and other crustacean shells plus corn are key ingredients of the "green" coating that DAS's Toshi Sugama invented to protect aluminum and other metals from corrosion. After tests in the salt spray chamber (back) Sugama's coated aluminum (front, right) remains undamaged, while an uncoated sample (left) has become corroded.

commented Sugama.

However, chitosan's property of repelling water only exists when the



Roger Stoutenburg

ter soluble, and it does not stick well to metal.

To solve these problems, Sugama combined the chitosan with another soluble "green" material that he had investigated previously: dextrine from cornstarch.

The acidic properties of dextrine, when it is mixed with chitosan in the right proportions and heated, give a product that forms a dense, smooth surface that adheres to metals. "That's what we needed to protect metals like aluminum that, without a coating, are corroded by moisture, especially by salt water," Sugama said.

To coat aluminum, it is dipped in the solution of chitosan and dextrine several times, emerging covered with a thin film of the solution. The aluminum is then heated to between 120° and 200° centigrade, depending on the thickness of the coating. At the appropriate temperature, the film changes its molecular formation, becoming a firm, smooth coating that clings to aluminum and other metals such as zinc alloys and magnesium.

Experiments have shown that, while saltwater pits uncoated aluminum after only 24 hours, the surf-and-turf coating helps aluminum resist pitting from saltwater for 720 hours. This advantage opens the door to many

(continued on page 2)

Life Sciences Associate Director Nora Volkow Wins Award From Nuclear Medicine Society

BNL's Associate Laboratory Director for Life Sciences, Nora Volkow, was recently honored with the Kuhl-Lassen Award Society by the Society for Nuclear Medicine at the organization's annual meeting in Los Angeles. Named for two pioneers of research in the field, the award was presented to Volkow in acknowledgment of her significant contributions to research on the brain, using an imaging technique called positron emission tomography (PET).

With her colleagues in the Medical and Chemistry Departments (see story, right), Volkow investigates the biochemical changes in the brain associated with addiction to drugs and alcohol, aging, and prescription-drug action. Currently, her studies are focused on finding an effective pharmacological treatment of addiction and on finding ways of delaying and counteracting aging's deleterious effects on the brain.

Now a board-certified psychiatrist, Volkow performed groundbreaking research on the toxic effects of cocaine on the brain at the University of Texas Medical School, 1984-87. She joined Brookhaven's staff as an associate scientist to continue this research in 1987. Volkow became Associate Chief of Staff of Brookhaven's Clinical Research Center in 1990 and was granted tenure in 1992.

In 1994, she was appointed Director of the Nuclear Medicine Program and became Chair of BNL's Medical Department in 1996. Volkow was named to her current position this April. Among her honors, Volkow was named 1999 Woman Scientist of the Year by the Museum of Science and History in Jacksonville, Florida, and the 1998 Woman in Medicine within Brookhaven Town.

Chemistry's Joanna Fowler Honored by Long Island Engineers For PET Imaging Research

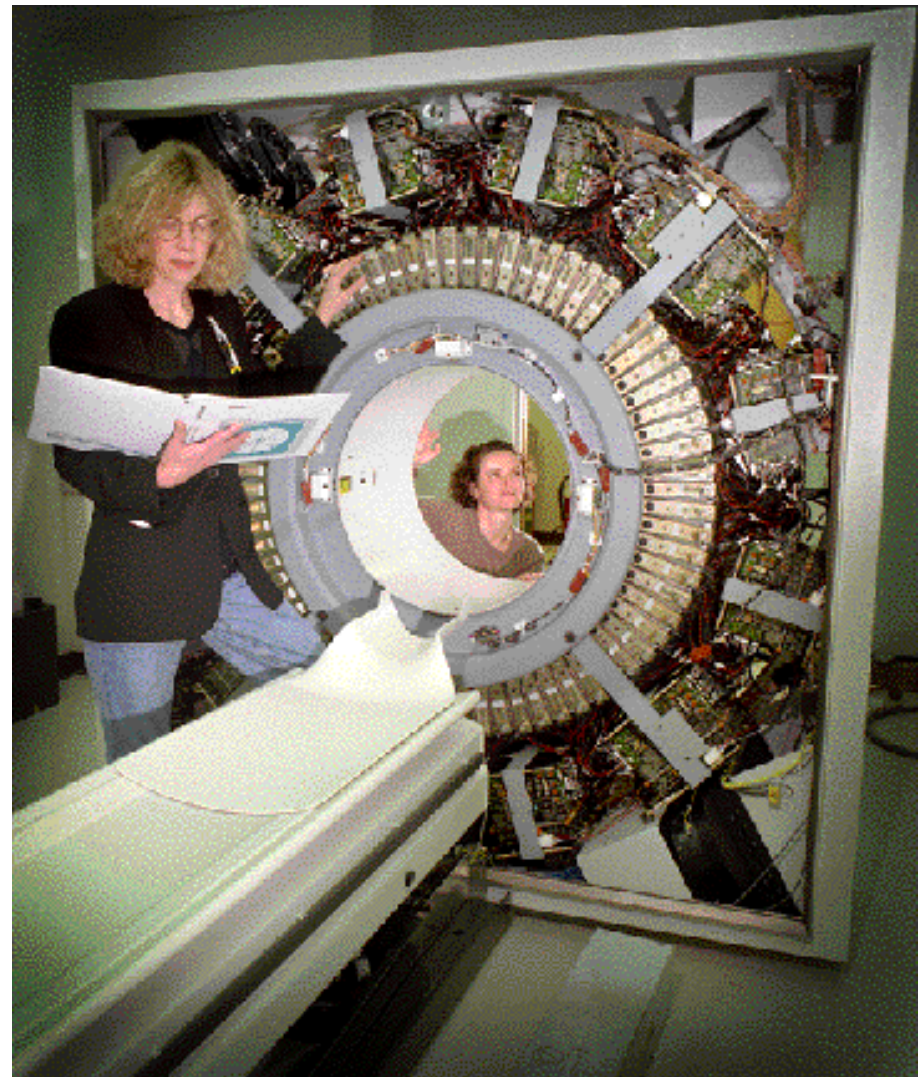
Joanna Fowler, a senior chemist in the Chemistry Department, was one of three recipients of the 1999 Achievement Award presented by the Engineers Joint Committee of Long Island, a professional organization with over 10,000 members.

For outstanding contributions to the engineering profession and society, plaques were presented to Fowler, and David Douchette, who is associate dean of the Long Island campus of Polytechnic University, and Chester Kelsey, who is a senior partner of The Bowne Organization.

Through the use of a medical imaging technology called positron emission tomography (PET), Fowler and her colleagues in the Chemistry and Medical Departments (see story, left) have made major contributions to the understanding of the biological processes in addiction to drugs and alcohol, aging, and prescription-drug action. While expertise in chemistry and medicine is crucial for such studies, advances in engineering have been a key factor in obtaining high-quality images.

Joanna Fowler earned her B.S. in chemistry from the University of South Florida in 1964 and her Ph.D. in chemistry from the University of Colorado in 1967. Except for a year as a senior research associate at the University of East Norwich, England, she has spent her entire career at the Lab. She was granted tenure in 1983.

Among her many honors, Fowler was a 1998 recipient of an E.O. Lawrence Memorial Award given by DOE, the Francis P. Garvan-John M. Olin Medal given by the American Chemical Society in 1998, and the 1997 Paul Aebersold Award of the Society of Nuclear Medicine.



Pictured by BNL's positron emission tomograph are Joanna Fowler (foreground) and Nora Volkow.

90 BNLers Earn \$200 Bonds for Perfect Attendance in 1998

Congratulations to the following 90 full-time employees who have each earned a 1998 Perfect Attendance Award of a \$200 savings bond. Pictured (right) are some of the winners.

Particular kudos go to Paula Jean Pozzoli, Administrative Support Division, and Phyllis Tinsley-Smith, Biology Department, for leading the group with their record-breaking eight and seven consecutive years of perfect attendance, respectively.

Last year was the first year that members of the Suffolk County Security Police Association in the Safeguards & Security Division were among those eligible for this prize.

The award was first given in 1992, when 15 full-time weekly employees on the technical and clerical schedules were recognized for their perfect attendance during 1991.

In 1995, these employees and those from the then Oil, Chemical & Atomic Workers International (now called the Paper, Allied-Industrial, Chemical & Energy Workers International) were joined in being eligible for the award by BNL employees represented by the International Brotherhood of Electrical Workers.

As usual, the list of this year's winners highlights how many times an employee has previously won this award.

However, employees who became eligible for it after its inception have often served BNL with additional years of perfect attendance that are on record elsewhere.

- **Administrative Services Division:** John Blydenburgh, Mattie Brown⁴, Selestine Brown³, Jean Bunselmeyer, James Downing³, Ulises Feliciano, Dhruba Ghimiray, Frank Haibon²⁺, Linwood Johnson⁴, Collos Lamb, Esther Larios, Brian Mayo³, Joseph Modjeska⁴, Paula Pozzoli⁸, Jerome Quigley⁴, Glenda Radich⁴, Janet Soper, Veronica Varlack⁴, Charles Whiting, Shelby Williams⁴;
- **Alternating Gradient Synchrotron Department:** Jorge Jimenez, John Stehle, Louis Tenreiro, Bernard Yatauro;



Roger Stoutenburgh

- **Biology Department:** Janet Sikora³, Phyllis Tinsley-Smith⁷;
- **Central Shops Division:** James Bell, Ronald Brewer⁴, Frank Flegar³, Gerald Greenidge⁴, Christine King², Robert Lynn⁺, Ronald Orsini³, Richard Ryder⁴, Richard Savoy², Randolph Seibel⁴, Ernst Sohn, John Walsh;
- **Department of Applied Science:** Scott Smith²;
- **Director's Office:** Regina Paquette;
- **Emergency Services Division:** Roy Barone⁴, John Foley²⁺, Gary Schaum²⁺;
- **Environmental Services Division:** Richard Lagattolla;
- **Financial Services Division:** Marie-Luise Hobson⁺, Joan Smith;
- **Information Services Division:** Theresa Esposito, Cornelius Jackson⁴, Alex Reben⁴, Joseph Rubino²;
- **Medical Department:** Kerry Bonti⁺;
- **National Synchrotron Light Source Department:** Joan Marshall², John Vaughn, Nancye Wright⁺;
- **Plant Engineering Division:** Robert Brady, John Brady, Robert Browngardt, Herman Butts⁴, James Callihan²⁺, Thomas Crews³, Edward Durham², Susan Evans⁴, Frank Gaetan³, Christopher Hanson, Jerry Hobson²⁺, Roy Johnson²⁺, Claudia Jones, Frederick (Spider) Ligon⁴, Richard Lutz⁴, Raymond Mayo⁺, Lonnie Muldrow⁴, Stephen O'Kula⁺, Jeffrey Raynor²⁺, Brian Rohena⁴, Zaida Rosado⁴, William Schmidt⁴, Franklin Snell²⁺, Frank Strelecki, Min-Hsiung Yang²⁺, Frank Zambriski²;
- **Safeguards & Security Division:** George Bostick, Christopher Congemi, Luke Greco, Matthias Harrington, Richard Miraglia, Mark Opisso, Lisa Smith;
- **Reactor Division:** John Bloom⁵; and
- **Relativistic Heavy Ion Collider Project:** Paul Phillipsberg, James Stolfi.

² two consecutive years ⁵ five consecutive years ⁸ eight consecutive years
³ three consecutive years ⁷ seven consecutive years ⁺ two nonconsecutive years
⁴ four consecutive years

'Green' Coating (cont'd)

useful applications, so Sugama's patented coating is of considerable interest to industry.

"Also, because this coating has no toxic ingredients and needs relatively little heating to harden, it can be safely and easily renewed," said Sugama. "We are developing a way for it to be sprayed on to a metal surface and heated with an infrared or ultraviolet lamp."

Previous environmentally benign developments from Sugama and his colleagues have included a high-performance cement for use in geothermal wells and a composite metal-and-ceramic coating to protect nickel-chromium alloy used in smelting aluminum (see Brookhaven Bulletin, April 10, 1998). — Liz Seubert

BNLers Give 356 Units

The spring blood drive, which was held at the Lab on June 17 & 18, drew 396 BNLers who volunteered to give, of whom 356 were able to donate. As a result, 356 units of blood were collected to help stock the shelves of Long Island's blood banks.

For taking time out of their busy work days to help meet this vital community need, those who donated are thanked by Blood Drive Chair Susan Foster, Human Resources Division.

Service Awards

The following employees celebrated service anniversaries during June:

- 40 Years**
Ottmar Kistner Physics
Thaddeus F. Kycia Physics
- 35 Years**
Mulki R. Bhat Adv. Tech.
Susan M. Sevia Info. Tech.
Stephen T. Waski Plant Eng.
- 30 Years**
Richard A. Holroyd Chemistry
Bette A. Morgan Info. Tech.
- 25 Years**
Thomas R. Brown AGS
Morgan May Physics
Randi B. Vogt Reactor
- 20 Years**
James G. Alessi AGS
Vincent J. Castillo AGS
David L. Derryberry RHIC
John F. Di Nicola Plant Eng.
Anthony N. Fresco Adv. Tech.
Stephen S. Howell Chemistry
Christopher J. Manning ... Cent. Shops
Frank J. Marotta Emerg. Serv.
Bonnie L. Miller Human Resource
Dawn E. Mosoff CIGPA
William J. Newburgh NSLS
Norman K. Nilsson Plant Eng.
Roger R. Stoutenburgh .. Info. Services
Susan E. Wong Info. Tech.
- 10 Years**
Anthony Di Dio Plant Eng.
Raymond L. Dumont Instrum.
Betty F. Elder AGS
Feng Hsu Adv. Tech.
Joyce O. Mortimer ... Qual. Management
Robert L. Selvey S&H Services
Thomas J. Shea RHIC

- Michael J. Takacs Reactor
- Celeste D. Tymann ... Admin. Support
- Jia Wang App. Science
- Gary J. Whitbeck RHIC

The following employees celebrated service anniversaries during July:

- 40 Years**
Albert G. Prodel RHIC
- 35 Years**
Robert M. Di Lello Admin. Support
- 30 Years**
Veljko Radeka Instrum.
- 25 Years**
Thomas Crews Plant Eng.
Masaki Suenaga App. Science
- 20 Years**
Charles L. Dunford Adv. Tech.
Cora T. Feliciano Physics
David R. Stampf Info. Tech.
- 10 Years**
John C. Biggs Physics
Cyrus Biscardi AGS
Richard A. Di Franco AGS
Stephen M. Gill AGS
Ronald A. Mulderig Plant Eng.
Edward T. Murphy Plant Eng.
Lev Neymotin Adv. Tech.
Joseph G. O. Conon Reactor
Dysart A. Ravenhall AGS
John P. Russell Cont. & Proc.
Carl A. Skrezec Sr. AGS
Henry W. Strelecki RHIC
John W. Tradeski RHIC
Narinder K. Tutu Adv. Tech.
Clarence R. Wilkins ... Admin. Support
- 5 Years**
Glenn Boyle AGS
John G. Bruce Plant Eng.
David S. Coburn Physics
Gary P. Danowski AGS

- Stevenson P. Eckhoff Plant Eng.
- Thomas P. Hayes AGS
- Martin J. Kelly Plant Eng.
- Beth Y. Lin Biology
- Anthony Nicoletti RHIC
- Russel J. Reaver ... Safeguards & Sec.
- Stanley P. Sakry Reactor
- John F. Schill Instrum.
- Jesse D. Schmalzle RHIC
- Patricia A. Van Gurp Adv. Tech.
- Ronald E. Zalewski Plant Eng.
- Edward J. Zeitler NSLS

Dual Coverage

For forms or more information, contact Muriel Pfeiffer, 8:30 a.m. to 1 p.m., Monday through Thursday, in the Benefits Office, Human Resources Division, Bldg. 185.

For participants in the CIGNA indemnity of PPO medical plans who have dual coverage through BNL, the Lab has implemented a procedure for filing medical claims.

When filling medical claims, participants with dual Lab coverage must fill out an additional form which identifies them as being covered by both their own and their spouse's medical insurance. The form is available from the Benefits Office, and it must be submitted with medical claim forms and medical bills to the address on the claim form. The claim will first be processed under the participant's social security number and then under the spouse's social security number.

Free Summer Sunday Tours Continue Through August 29th

What's Your Reaction to Chemical Reactions?

How do chemical reactions govern the body, brain, environment, and world? All are invited to find out this Sunday, August 1, by exploring the research into nuclei, atoms and molecules going on within the Lab's Chemistry Department.

The Department's staff carry out a wide range of research in the chemical sciences, including work on nuclear and radiation chemistry, radiopharmaceutical research and development, catalysis — and more.

In fact, Chemistry is home to a electron accelerator which is used for research into picosecond-pulse radiolysis, high-pressure radiation chemistry, and combined radiolysis-laser photolysis, which allows chemists to explore very rapid reactions during catalysis, and during energy conversion and storage.

Away from their home in Bldg. 555, Chemistry staffers perform research at BNL's National Synchrotron Light Source, and use other sources of photons and neutrons for their studies.

In addition, chemists are part of the PHOBOS collaboration, which is building a detector at BNL's Relativistic Heavy Ion Collider to study the consequences of the collision of gold ions, looking for nuclear matter to undergo a phase transition to form what is called quark-gluon plasma.

The Lab's chemists also collaborate with members of the Medical Department in interdisciplinary studies involving medical imaging techniques called PET, for positron emission tomography (see caption, right, and stories, page 1), and magnetic resonance imaging, or MRI.

Besides learning about this department, visitors may partake in the other offerings of BNL's Summer Sundays: a guided bus trip around site, the Whiz Bang Science Show, and the Camp Upton Historical Collection.

Fun for children of all ages, the Whiz Bang Science Show is a lively interactive demonstration of basic sci-



At BNL's PET facility, Chemistry's Stephen Dewey (foreground) works with Don Warner of Chemistry and Naomi Pappas of Medical to study how the brain responds to drugs.

entific principles presented at 10:30 a.m., noon, 1:30 p.m., and 3:30 p.m.

Housed in a Camp Upton chapel, the Camp Upton Historical Collection contains the history of the site during its pre-Lab days as a U.S. Army camp

during World Wars I and II.

Organized by BNL's Museum Programs, Summer Sundays are free and open to all. The Sunday program runs from 10 a.m. to 5 p.m., but visitors must arrive before 3 p.m.

Pick a Student

Completed applications for the fall 1999 Energy Research Undergraduate Laboratory Fellowship (ERULF) Program are available for review on an electronic database until August 2. The address and passwords are available from the Office of Educational Programs (OEP), Ext. 4503 or cathyo@bnl.gov, or from departmental education coordinators.

The undergraduate program will run for 16 weeks from approximately August 23 until December 10. OEP will pay for the student's round-trip travel and their stipend of \$350 per week. Sponsoring departments pay \$125 weekly for housing.

Learn Kathak Dance

In response to popular interest follow a Berkner Hall performance by a professional troupe (see Brookhaven Bulletin, June 11-25, 1999), the style of classical Indian dance called Kathak will be taught on site beginning Sunday, August 1, at 10 a.m.

Offered by the BERA Indo-American Association, the classes are open to all. For registration information, contact Geeta Joshi-Topé, Ext. 5702 or geeta@bnl.gov.

BERA Bus Trips

BERA, offers bus trips that include round-trip transportation on a fully-equipped coach bus and admission to the advertised event. All trips leave from the Brookhaven Center; if requested, an extra pickup will be made at the park and ride at L.I.E. exit 63.

Tickets are sold first come, first served. To make paid reservations for one or more of the following trips, go to the BERA Sales Office, Berkner Hall, Tuesday through Friday, 9 a.m. - 1:30 p.m. For more information, call Andra Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

To Great Adventure on August 14

On Saturday, August 14, BERA goes to Six Flags Great Adventure amusement park, which features rides, roller coasters, a water-stunt show, and more. The per-person cost is \$45.

The bus will leave promptly at 7:30 a.m. and return around 9 p.m.

To Shea Stadium on August 24

On Tuesday, August 24, BERA is going to Shea Stadium in Queens, to see the New York Mets play the Houston Astros in an evening baseball game.

The cost is \$45 per person for the bus and box seats. Participants are to arrive by 4:15 p.m., the bus will leave promptly at 4:30, the game starts at 7:30 p.m., and the bus will leave the stadium at approximately 10:30 p.m. to return to the Lab.

To Radio City on December 5

On Sunday, December 5, BERA is going to the newly refurbished Radio City Music Hall in New York City, to see the annual Christmas Show, which, this year, features some new sets and costumes.

The cost is \$85 per person, which includes orchestra or front mezzanine seats, as well as transportation. The bus will leave at 11:30 a.m.; return to the Lab will be at approximately 9:30 p.m. There will be time in the city for seeing the Rockefeller Center tree, browsing 5th Avenue, and/or window-shopping the holiday decorations.

Dosimetry badges will be exchanged today, Friday, July 30. Therefore, please place your badge in its assigned rack space before leaving work today.

Tennis Tournament

Employees, retirees, facility-users, and summer visitors are invited to sign up now for the 1999 annual Tennis Tournament.

Scheduled to run from August 9 through 27, the tournament may include men's singles and doubles, women's singles and doubles, and mixed doubles, depending upon the sign-up.

Sign up Tuesdays through Fridays, 9 a.m. to 1:30 p.m., now through 1:30 p.m. on Tuesday, August 3, at the BERA Sales Office, Berkner Hall, where the tournament's rules are also available.

The draw will be posted at the BERA Sales Office and courtside. Matches may be played any time afterwards, but play must be completed by the scheduled dates. For more information, contact Joe Carbonaro, Ext. 5139 or e-mail joe1@bnl.gov.

Balloon Festival Tickets Available

This year's Waldbaum's Balloon Festival will feature some 75 hot-air balloons participating in five ascensions at dawn and dusk, at Calabro Airport in Shirley, Friday through Sunday, August 13-15.

Tickets for this festival are now on sale at the BERA Sales Office in Berkner Hall, Tuesday through Friday, 9:30 a.m. to 1 p.m.

The cost is \$8 for adults and \$4, for children age 4 to 12; the cost at the gate is \$15 for adults and \$10 for children those ages.

The festival's schedule is:

day	date	time
Fri.	Aug. 13	1-9 p.m.
Sat.	Aug. 14	6 a.m. - 10 p.m.
Sun.	Aug. 15	6 a.m. - 7:30 p.m.

Friday night, Gary U.S. Bond and Chuck Berry will be in concert at the festival. Saturday night will feature Hootie and the Blowfish, and Grucci fireworks. On Sunday, KC and the Sunshine Band will perform.

Wanted: BWIS Slogan!

Brookhaven Women in Science (BWIS) is holding a contest to find a new slogan for its 20th anniversary in November.

The contest is open to BNL employees, retirees, facility users, guests, and their families. To enter, send your entry to Terri Kneitel, Bldg. 120, by Friday, August 6. The winner and all finalists will receive prizes.

Hot Summer Jam

This summer is hot, so make it hotter: attend BERA's next hot Summer Jam TGIF party, which will start at 6 p.m. on Friday, August 13, at the Rock Hill Country Club, off Clancy Road in Manorville.

The cost of \$5 will cover hors d'oeuvres and entertainment, including music by DJ Alex; a cash bar will be available. The party is open to all BNL employees, facility-users, visitors, and their guests, and no reservations are required. For more information, call Charles Gardner, Ext. 5214, or Lou Nieves, Ext. 4897.

Arrivals & Departures

Arrivals	
James J. Anselmini	NSLS
Mahalingam Balasubramanian	App. Sci.
Paraskevas D. Demetriou	AGS
Richard W. Ibbotson	RHIC
Daqi Li	Env. Res.
Maryellen McCabe	Tech. Info.
Daebuom Mun	Fin. Serv.
Yunjia Tang	Biology
Debra E. Vidale	Fin. Serv.
Departures	
Bruce P. Abel	AGS
William J. Brynda	Reactor
Kevin L. Burns	RHIC
Yaohui Fan	NSLS
Asha C. Handa	AGS
Walter L. Hensel	AGS
John J. McNulty	Biology
Heriberto M. Rosado	Plant Eng.
Zaida Rosado	Plant Eng.
Scott D. Rothe	RHIC
William A. Ryan	RHIC
Scott D. Wachino	Env. Res.

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BERA Book Fair Today

Today is the final day of a BERA book fair in Berkner Hall lobby, 10 a.m.-3 p.m. On sale are hardcover books — including children's stories, cookbooks and best-sellers — at up to 70 percent off list price. Gift items are also available. Credit cards and checks will be accepted. For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Free Shuttle Bus For Summer Visitors

This is a reminder for students and other visitors living on site during the summer: the Lab runs a free shuttle bus to points near BNL on Saturdays between 12:30 and 4:30 p.m., as follows:

date	destination
July 31	Port Jefferson Village
Aug. 7	Tanger Mall, Riverhead Aquarium, Splish Splash water park
Aug. 14	Smith Haven Mall
Aug. 21	Port Jefferson Village

This schedule is subject to change due to the weather. Passengers will be picked up and dropped off in the Bell Avenue parking lot of Fleming House, Bldg. 180. To reserve space on the shuttle, call Juanita Beatty, Ext. 2535.

Softball News

Help Build Kosovo Baseball

BERA and its Softball League have joined Battelle in an effort to supply Kosovo with baseball equipment, as that war-torn region attempts to build its first baseball field.

To donate any baseball equipment, such as bats, balls and mitts, that is in good condition, drop it off at the Recreation Office in Bldg. 185, the BERA Sales Office in Berkner Hall, or at the gym office in Bldg. 461.

For more information, call M. Kay Dellimore, Ext. 2873.

Party Volunteers Needed

Volunteers are needed on a Softball party committee. To join, contact Sue Cataldo, Ext. 4461; Laurie Pearl, Ext. 5520; Andrea Epple, Ext. 5943; or Denise Bingham, Ext. 5873.



Placement Notices

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD8266. SECRETARIAL POSITION - Requires an AAS in secretarial science or equivalent work experience, good secretarial and communication skills, knowledge of office procedures, a working knowledge of Corel WordPerfect and/or Microsoft Word, and familiarity with tables and equations. A working knowledge of a spreadsheet program such as EXCEL is desirable. Under direct supervision of group leaders and administrative secretaries, will prepare reports and correspondence, schedule appointments, make travel arrangements, and perform other routine secretarial duties such as preparing travel vouchers, making viewgraphs, filing, etc. May be responsible for performing moderately complex word-processing and desktop publishing assignments, and assisting in maintaining group project files. Will provide secretarial support to two groups within the Environmental & Systems Engineering Division. Department of Advanced Technology.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS6498. ENGINEERING POSITION/ENVIRONMENTAL COMPLIANCE REPRESENTATIVE - (reposting) Requires a BS in science or engineering and a minimum of five years of experience in evaluating and applying environmental regulations in a laboratory setting. Requires a general working knowledge of RCRA, CWA, CAA, SDWA, TSCA, and NYS and local environmental regulations, with expertise in at least one area. Demonstrated familiarity with pollution-prevention concepts, with strong process-engineering skills and ability to analyze projects proactively to identify and eliminate compliance issues and wastes also required, as are demonstrated problem-solving skills. Experience in life science and chemical research highly desirable. Familiarity with biological, medical and bench chemistry research techniques and instrumentation beneficial. Environmental Services Division.