

'Mail-In' Crystallography At BNL's NSLS Featured in *Nature*



Roger Stoutenburgh 09000503

Howard Robinson

BNL's Howard Robinson, Biology Department, who runs the "mail-in" crystallography program at the National Synchrotron Light Source (NSLS), got star billing (and photo prominence, above) in a news feature on the subject in the June 19, 2003, issue of the journal *Nature*. Since 2000, Robinson and others at the NSLS have offered a mail-in data-collection service for scientists who want to solve protein structures without having to travel to a synchrotron themselves. According to the *Nature* article, such services are becoming increasingly popular for biologists without formal training in crystallography and for those who would rather not wait

for time on a beam line. Robinson's team at the NSLS typically works on about 50 mail-in projects a year, free to academic scientists. Consistent with BNL's mission of making its highly specialized research facilities available to outside researchers, this mail-in program broadens BNL's service to science and is helping to speed up the process of biological research. The program is funded by the Office of Basic Energy Sciences and Office of Biological & Environmental Research within DOE's Office of Science and the National Institute of Health's National Center for Research Resources. — Karen McNulty Walsh
For more details, go to www.px.nsls.bnl.gov and click on "mail-in data collection."

Hwang Named CFN Director

Robert Hwang has been named Director of BNL's new Center for Functional Nanomaterials (CFN), effective March 1.

Construction on the CFN at the Lab is due to begin in 2005. Funded by the DOE's Office of Basic Energy Sciences within the Office of Science, it will be one of five nanoscience centers built at DOE national laboratories. The 85,000-square-foot center at BNL will provide scientists from universities, industry, and other laboratories with state-of-the-art facilities to study nanomaterials — materials the size of a few billionths of a meter.

Since nanomaterials' chemical and physical properties differ from those of bulk materials, researchers may be able to tailor these properties to create unique materials with new uses. The functional nanomaterials resulting from studies at the Brookhaven center are expected to have broad applications as the basis of future technology, such as faster computers, improved solar energy conversion, and more efficient catalysis of chemical reactions.

"I've worked in nanoscience for much of my scientific career, and this new position at Brookhaven is an exciting opportunity for me," Hwang said. "It's also an exciting time for the Lab, since the new center will give scientists from Brookhaven and from around the nation the opportunity to do research in new areas and in new ways. The whole nation will reap the benefits of this forefront research."

The CFN at BNL will be located adjacent to the National Synchrotron Light



Roger Stoutenburgh 03080303

Robert Hwang

Source (NSLS). To be composed of state-of-the-art laboratories and computational facilities for the synthesis, characterization, and modeling of nanomaterials, the CFN will couple with and complement the unique capabilities of the NSLS.

"Nanoscience is a multidisciplinary field, and Brookhaven is a multidisciplinary laboratory, so we will draw on this strength in research at the new nanocenter," Hwang commented. "Capabilities for nanoscience research will be set up within the chemistry, materials science, physics, and instrumentation buildings."

Robert Hwang earned a B.S. in physics from the University of California at Los Angeles in 1981, and a Ph.D. in condensed matter physics from the University of Maryland in 1988. He became a postdoctoral research fellow at the University of California at Berkeley and DOE's Lawrence Berkeley National Laboratory in
(continued on page 2)

BSA Colloquium, 7/15 Hayden Planetarium's deGrasse Tyson To Talk on 'Destiny in Space?'

Neil deGrasse Tyson, an astrophysicist and the Frederick P. Rose Director of the Hayden Planetarium at the American Museum of Natural History, will give a BSA Colloquium on "Destiny in Space?" at Berkner Hall on Tuesday, July 15, at 4 p.m.

never leave low-Earth orbit in spite of the perennial dreams of the space community. Tyson believes solutions to this problem exist, but require shifts in the government's funding paradigms that are without precedent. In this colloquium, Tyson will review and critique the past, present, and future of American aerospace.

Tyson earned a B.A. in physics from Harvard University in 1980, an M.S. in astronomy from the University of Texas, Austin, in 1983, and a Ph.D. in astrophysics from Columbia University in 1991. He was a postdoctoral research associate at Princeton University's Department of Astrophysics before joining the Hayden Planetarium as a staff scientist in 1994. Tyson became Director of the planetarium in 1996. He is also a research associate in the Department of Astrophysics at the American Museum of Natural History.

Tyson recently served as one of 12 members of President Bush's commission on the future of the U.S. aerospace industry. In addition to writing for technical publications, he authored or co-authored numerous books, including the autobiographical *The Sky is Not the Limit: Adventures of an Urban Astrophysicist* (Doubleday, 2000). Since 1995, he has been a monthly essayist for the magazine *Natural History*.
— Diane Greenberg



Neil deGrasse Tyson

During the past century, flying became a viable commercial enterprise, jets were invented, the sound barrier was broken, and man voyaged to the moon. But humans have not left low-Earth orbit since Apollo 17, thirty-one years ago. According to Tyson, because of the political complexities of funding major space projects across time and cultures, Americans may

384th Brookhaven Lecture, 7/16 Batteries: From Frogs' Legs to Hybrid Vehicles

Rechargeable batteries are a key component in portable electronic equipment — cell phones and PDAs, for example — and in biomedical devices such as pacemakers and defibrillators. In the future, rechargeable batteries will serve as the "life blood" of hybrid-electric and fuel-cell-powered vehicles. Today, batteries are a big business, with a market expected to boom as the sales of portable electronic devices continue to skyrocket.

During the past decade, much progress has been made in developing new metal-hydride and lithium-ion batteries. This progress is due, in part, to advances in battery materials, which resulted from knowledge revealed by x-ray studies of these materials. BNL scientists pioneered the application of these sophisticated x-ray techniques at the Lab's National Synchrotron Light Source. Through their research, battery storage capacity, battery power and life, and thermal stability continue to increase.

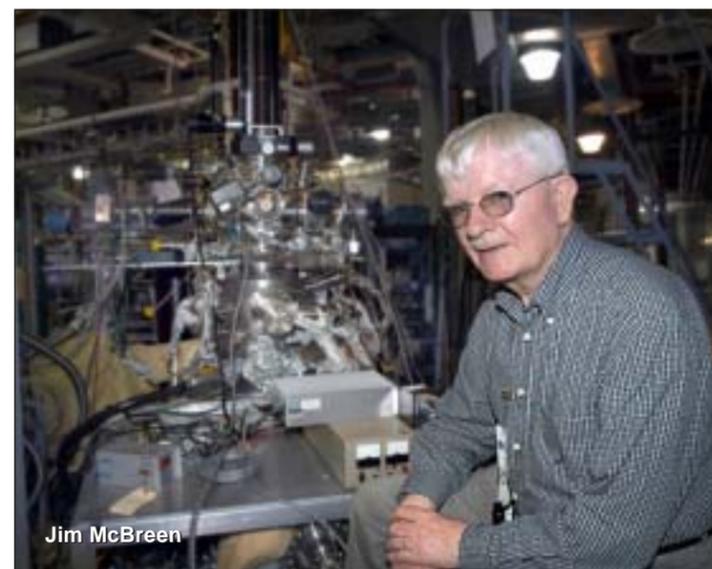
To learn more about this work, join chemist Jim McBreen of the Materials Science Department (MSD) as he presents the 384th Brookhaven Lecture, "Batteries: From Frogs' Legs to Hybrid Vehicles," on Wednesday, July 16, at 4 p.m., in Berkner Hall.

McBreen will be introduced by James Misewich, MSD Chair.

McBreen received his B.S. in chemistry from University College, Dublin, Ireland, in 1961, and earned his Ph.D. in physical chemistry at the University of Pennsylvania in 1965. He joined BNL in 1977, and his early research included work on large-scale energy storage, fuel-cell electrocatalysts, and zinc electrodes.

McBreen now heads MSD's Electrochemical Sciences Group, where he supervises work on non-aqueous liquid and polymer electrodes, lithium-ion batteries, fuel-cell electrocatalysts, and electroactive polymers.

Refreshments will be offered before and after the lecture. To accompany the lecturer to dinner at a restaurant off site after the lecture, call Alexandra Lopez, Ext. 2590.
— John Galvin



Jim McBreen

Joseph Rubino 06010703

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 Chris Carter, 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. Hall) 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 —

Weekdays: Free English for Speakers of Other Languages Classes

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

Mon., Tues., & Thurs.: Kickboxing

\$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Christine Carter, Ext. 2873.

Mon., Thurs., & Fri.: Tai Chi

Noon-12:45 p.m., Brookhaven Center North Room. Adam Rusek, Ext. 5830 or rusek@bnl.gov.

Mondays: BNL Dance Club Ballroom, Latin & Swing Practice

5:30-7 p.m. North Ballroom, Brookhaven Center, except Lab holidays. Jean Logan, jlogan@bnl.gov or Ext. 4391.

Tuesdays: Welcome Coffee

10-11:30 a.m. Rec. Hall. Hospitality event. Come and meet friends. The first Tuesday of every month is special for Lab newcomers and leaving guests. Hospitality Chair Monique de la Beij, 399-7656.

Tuesdays: BNL Music Club

Noon, North Room, Brookhaven Center. Come hear live music. Joe Vignola, Ext. 3846.

Tuesdays: Singles Club

5:15 p.m., Brookhaven Center. Contact: Jean, Ext. 4391.

Tuesdays: BNL Dance Club Individual & Couples instruction

5-11 p.m. North Ballroom, Brookhaven Center. Ron Ondrovic, ondrovic@bnl.gov or Ext. 4553.

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/toastmasters/default.htm.

Tuesdays & Thursdays: Aerobics

5:15-6:30 p.m., \$4 per class. Rec. Hall. Pat Flood, Ext. 7886.

Tuesdays & Thursdays: Aqua Aerobics

5:15-6:15 p.m. Christine Carter, Ext. 2873.

Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Hall. An infant/toddler drop-in event. Parents meet while children play. Svetlana Agafonova, 205-5065.

Wednesdays: Farmer's Market

11:30 a.m.-1:30 p.m., Berkner Hall parking lot

Wednesdays: Weight Watchers

Noon-1 p.m. Michael Thorn, Ext. 8612.

Wednesdays: Yoga Practice

Noon-1 p.m., Brookhaven Center. Free. Ila Campbell, Ext. 2206.

Wednesdays: Open Chess Night

5-8 p.m., Rec. Hall. Christine Carter, Ext. 5090.

Wednesdays: Exercise 101

5:15-6 p.m., Rec. Hall. \$4 per class or \$35 for 10 classes. Stretching, low-impact aerobics, and other exercises. Pat Flood, Ext. 7886.

Wednesdays: Dance Club Group Lessons

6-9 p.m. North Ballroom, Brookhaven Center. Series 4 lessons start 4/9. Marsha Belford, belford@bnl.gov or Ext. 5053.

Fridays: Family Swim Night

5-8 p.m. at the BNL Pool. \$5 per family.

Fridays: BNL Social & Cultural Club

6-9 p.m. North Ballroom, Brookhaven Ctr., dance lessons, 9-11:30 p.m. general dancing. Rudy Alforque, Ext. 4733, rudy@bnl.gov.

Fridays: Jiu Jitsu Club

6-7 p.m. in the gym. All levels, ages 6 and above. \$10 per class. Tom, Ext. 4556.

— THIS WEEKEND —

Sunday, 7/13

Hispanic Heritage Club Summer Social

Noon-6 p.m., gazebo. All are invited. Barbecues will be available, so bring your picnic and beverage. Music will be provided by D.J. Alex. Bring your own instrument and dancing feet to salsa and merengue. There will also be a softball game, volleyball, and horseshoes. Bring chairs and bikes. There will be musical chairs, face painting, a 50/50 raffle, and more. Carmen Narvaez, Ext. 3254, or narvaez@bnl.gov, or Yvette Malavet-Blum, malavet@bnl.gov.

— WEEK OF 7/14

Tuesday, 7/15

Stress/Eating Workshop

Noon-1 p.m., Berkner Hall. The Human Resources and Occupational Medicine Division will sponsor a "Lunch & Learn" seminar presented by Candice Bolbach of CIGNA Behavioral Health, a licensed psychotherapist and life coach, on how stress affects our eating behavior. Check your mailbox for registration forms. Linda Rundlett, Ext. 5126.

Chemist Mom, Cellist Daughter

Joseph Rubino D8710563



Etsuko Fujita, Chemistry Department, and Tomoko Fujita.

On May 21, chemist Etsuko Fujita of the Chemistry Department spent the morning at one of the workshops at this year's National Synchrotron Light Source Users' Meeting.

"They were discussing a technique called extended x-ray absorption fine structure, EXAFS for short," says Fujita. "What's new is that the structure of molecules can now be measured at extreme conditions, for example at low energy, at low concentration, or at fast time resolution. The last two considerations are of interest in the research I am doing, and I wanted to find out about them."

Fujita's research is on the chemical conversion of solar energy, including the reduction of carbon dioxide to useful chemicals and fuels, and small molecule activation. She studies what happens when molecules are activated, or "excited," by absorbing light, and monitors the subsequent reactions with small molecules, such as carbon dioxide. "The new EXAFS technique provides the structure of an excited molecule and/or the reaction intermediate that is produced in a very small fraction of a second after the light absorption," said Fujita.

Fast Forward to Music

Within not quite a fraction of a second, but a very few minutes after the talk concluded, Fujita hurried to Berkner Hall to participate in another of her special interests — listening to her 22-year-old daughter perform in that day's BSA Noon Recital. This was the second time that Tomoko Fujita, a cellist, had played at a Noon Recital. She has also performed as a soloist with numerous symphony orchestras and presented

Hwang (cont'd.)

1989, and, in 1990, he received an Alexander von Humboldt Fellowship to pursue research at the University of Munich, Germany.

Hwang joined the Advanced Materials Research Division in DOE's Sandia National Laboratories in 1991. He was appointed manager of the Thin Film & Interface Science Department in 1999, the position he held before coming to BNL.

More information on the Center for Functional Nanomaterials, including a call for research proposals, can be found at www.cfn.bnl.gov.

recitals at the Aspen Music Festival, Rice University, and the Juilliard School, and won the Edgar Feder Award for the Advancement of the Art of the Cello by the Violoncello Society of New York.

"So I felt I had no need to be concerned that she would play well," said her mother. "I could look forward to enjoying her performance."

Way Back When

Both Tomoko's father, Ichiro Fujita, a BNL Department of Applied Science chemist who died in 1983, and Etsuko had hoped that their children would enjoy music. At birth, Tomoko had received a set of musical recordings called the Suzuki Method: Music for Mother and Infant, as a gift from her great-aunt, who teaches piano. In order to learn music as a mother tongue, the theory goes, the same music has to be played to the child more than ten times a day for several months. Etsuko made sure that baby Tomoko regularly heard music from this collection as instructed to develop her musical appreciation.

"Although we made this effort for two years, she might have become a musician in any case," said Etsuko. "I don't play an instrument myself, but members of Ichiro's family were musical, and Tomoko's brother, who is two years older than she is, started the violin at age three and piano at age seven." Etsuko believes that learning music helps to develop a child's patience, concentration, and memorization skill.

At age two, while watching a "Live from Lincoln Center" broadcast of the New York Philharmonic on TV with her parents, Tomoko was asked which instrument she would like to

play. Said Tomoko, "Family history has it that I pointed to a cello because it was bigger than my older brother's violin!"

Tomoko first played a viola held upright with an endpin — a better size than a cello for a three-year-old. She took Suzuki lessons twice a week. When she was nine, Etsuko made sure she attended the Juilliard Pre-College Division all-day classes on Saturdays, in addition to her regular school classes.

"We spent a lot of time driving to Manhattan," said Etsuko.

"Of course, I sometimes felt it was a chore to practice," put in Tomoko. "Even now I feel reluctant on some days to put in that necessary time. But you do it because you know where it's going to take you."

Academic Note

During all this time, Etsuko was continuing with basic research on the chemical conversion of solar energy. Tomoko could see how important this work was to her mother, and she developed interests in academic directions as well as in her music. She enjoyed science in high school, participating in activities such as Science Olympiad, Academic Team, and the BNL Model Bridge Building contest.

"Tomoko's interest in her schoolwork kept her among the best students in her high school class, and she won a BSA scholarship in 1998," said Etsuko.

Tomoko was accepted at Harvard and Columbia Universities, but she chose to go to Rice University, where, with cello teacher Norman Fischer, she could pursue both music and academics under one roof. At Rice, she fulfilled the hopes of her family by graduating *summa cum laude* with a double degree: Bachelor of Music in cello per-

formance, and Bachelor of Arts in psychology.

"I couldn't choose an engineering or science major because the labs always conflicted with orchestra rehearsals, so I chose psychology," said Tomoko. "What I learned affected the way I perceived things. I am glad that I was able to follow both my academic and musical pathways."

Next Step

For now, Tomoko's focus is wholly on music. Having graduated from the Juilliard Pre-College with a double major in cello performance and composition, she is currently a Master's student at the Juilliard School. She was selected this summer to be a resident artist at the Tanglewood Music Center, where she will be one of the New Fromm Players, a group that specializes in contemporary music.

"I've played a considerable amount of new music, but this summer I'll be more immersed in it than ever before," Tomoko said. "I am very excited about this next step. It will take me to another level."

Meantime, Etsuko is looking forward to traveling to Tanglewood to hear her daughter play, and attending other noon recitals in Berkner Hall.

"I was extremely pleased that Tomoko was invited to play at the Lab," said Etsuko. "BNL lunchtime concerts give us comfort, peace, and enjoyment of music, and enable us to go back to our research with a fresh feeling and appreciation." — Liz Seubert

Note: See the Tanglewood schedule at: www.bso.org; the 7/17 concert: www.bso.org/singleTickets/perfDetail.jhtml?id=6600050. Tickets are available at the Box Office one hour before concerts, at \$25 for orchestra concerts, \$10 for other concerts.



Tomoko Fujita plays cello during a BSA Noon Recital in Berkner Hall. Her fellow musician from Juilliard, Kimball Gallagher, is at the piano.

Wanted: Help for Big Brothers Big Sisters

The Big Brothers Big Sisters (BBBS) organization, which helps mentor young people, needs donations and volunteers. BNLers may donate household goods, clothing, and toys in the collection boxes located at the Brookhaven Center; Berkner Hall; Plant Engineering, Bldg. 134C; Staff Services, Bldg. 179B; Occupational Medicine Services, Bldg. 527; Director's Office, Bldg. 460; DOE, Bldg. 464; and Photography & Graphic Arts, Bldg. 197B. Tax deductible forms are at each location. For more information or to arrange a pickup from your home, call Karen Adelwerth, Ext. 4262.

To become a Big Brother or Big Sister, call the Lab's BBBS liaison people: Adelwerth, Ext. 4262, and Celeste Tymann, Ext. 2551; or call BBBS at: Southampton, 631 287-0086; Holbrook, 631 467-8144; or Levittown, 516 731-7880. There is an urgent need for Big Brothers. For more information, go to www.bbbsli.org.

BNLers Adelwerth's and Tymann's efforts on behalf of BBBS are sponsored by BSA's Volunteers in Partnership (VIP) program. VIP can help BNL community volunteers in a variety of ways. For more information, see www.bnl.gov/community/vip/.

Arrivals & Departures

Arrivals

Yuguang Cai Physics
Margaret Desmond Fiscal
Shirley Kendall Diversity
Wei Ku Physics
Guang Liu Physics
Natalia Moiseeva NSLS
Christie Nelson NSLS
Denis Potapenko Chemistry
Paul Simons PPM
Kelly Warren Medical

Departures

Timothy Carroll C-A
Gregory Citver C-A
Vasil Perebeinos Physics
Karen Springer Biology
Gary Smith C-A
Paul Stein C-A
Mangala Tawde Biology
Michael Sebastino DO/TT
Julia Velkovska Physics

Recital

Pianofest at BNL, 7/16

In this, the fifteenth year of Pianofest, the summer workshop in the Hamptons, its director, Paul Schenly, will bring a number of outstanding young pianists to the Berkner Hall stage to demonstrate their talents. All are welcome, at noon on Wednesday, July 16.

Many of Pianofest's students, including several who performed at BNL Noon Recitals, have gone on to make their mark at the national and international level.

Noon recitals are free and open to the public. All visitors to the Lab of 16 and over must bring photo ID.



BNLer Pam Betti Sings Blues, 7/19

Pamela Betti of the Medical Department has another life: Outside BNL, she is a blues singer, and she will perform with her band, Black Cat Bone, on the KeySpan Main Stage at the Riverhead Blues Festival on Saturday, July 19, at 7 p.m.



Long Island's largest free music event, the Riverhead Blues Festival will run Friday through Sunday, July 18-20. During the festival, Black Cat Bone will also play at Club 91 in Riverhead on Friday and Saturday nights to promote their latest CD, "Get Your Cat Clothes On." The CD features songs written by Betti.

Hispanic Heritage Salsa Picnic, 7/13

All are invited to the Hispanic Heritage Club Summer Social, "Salsa Picnic," which will be held on Sunday, July 13, from noon to 6 p.m. at the BNL gazebo near the ballfields. Accommodations will be made for picnickers to barbecue at the grounds — bring your own food and beverage. Music will be provided by the club's own "DJ Alex" — bring instruments and dancing feet. Athletes will be able to join in softball, volleyball, and a horseshoe game. There will be musical chairs, face painting, and a dance contest for the children. For more information, contact Carmen Narvaez, Ext. 3254 or narvaez@bnl.gov, or Yvette Malavet-Blum, malavet@bnl.gov.

Cycletrons Motorcycle Club Lunchtime Gathering

In support of national "Ride to Work" day, the Cycletrons, BNL's motorcycle club, invite all club members, their families, friends, and others who have an interest in motorcycles to their annual lunchtime gathering on Wednesday, July 16, at noon at the gazebo by the softball fields. Tickets cost \$2 per person. Heroes, salads, soda, and more will be available.

For more information and to purchase tickets, contact Frank Dusek, Ext. 2022, or frankd@bnl.gov; or Richard Conte, Ext. 5741.



Calendar

Tuesday, 7/15 (cont'd)

*BSA Colloquium

4 p.m., Berkner Hall. Neil deGrasse Tyson, astrophysicist and Director of the Hayden Planetarium, American Museum of Natural History, will present "Destiny in Space?" See story, page 1.

Wednesday, 7/16

Verizon Wireless Demo

11 a.m.-2 p.m., Berkner Hall. A representative from Verizon will present BNLers with special rates on wireless products and services. Harry Campbell, 516-458-9122.

*Cycletrons Annual Lunchtime Gathering

Noon at the gazebo. All BNL motorcyclists are invited and asked to support national "Ride to Work" day. \$2 per person includes heroes, salads, soda, and more. Frank Dusek, Ext. 2022, frankd@bnl.gov; or Richard Conte, Ext. 5741.

*385th Brookhaven Lecture

4 p.m., Berkner Hall. Jim McBreen, Materials Sciences Department, will present "Batteries: From Frogs' Legs to Hybrid Vehicles." See story, page 1.

Saturday, 7/19

*Hospitality Bus Trip to Manhattan

\$10 per adult, \$5 for children ages 2-12. Bus leaves BNL at 9 a.m. from the Rec. Bldg. and leaves from Manhattan at 6 p.m. Purchase tickets at the gazebo in the apartment area on Tuesdays from 11-11:30 a.m. For more information, contact Anna Herman, Ext. 1059, or haniaherman@yahoo.com.

— WEEK OF 7/21 —

Monday, 7/21

*BERA Trip to N.Y. Yankees

4 p.m. Brookhaven Center. Sold out.

Thursday, 7/24

BERA Bridge Club

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

Friday, 7/25

*Blues Concert, Sam Taylor, Wolfe

8 p.m. Berkner Hall. See notice at left.

— WEEK OF 7/28 —

Monday, 7/28

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.

— WEEK OF 8/4 —

Thursday, 8/7

BERA Bridge Club

7 p.m., Brookhaven Center. Morris Strongson, Ext. 4192, mms@bnl.gov.

Friday, 8/8

*BERA Trip to N.Y. Yankees

4 p.m., Brookhaven Center. \$55. See notice at left.

— WEEK OF 8/11 —

Thursday, 8/14

Community Advisory Council Meeting

6:30 p.m., Berkner Hall, Room B. Open to the public. See also <http://www.bnl.gov/community/CAC.htm>.

Saturday, 8/16

*Ellis Island Bus Trip

\$39 per adult, \$36 per child, (over age 5.) includes bus, ferry, and tour. Bus leaves BNL at 8:30 a.m. from the Brookhaven Center and returns at 4:30 p.m. Pay at the BERA Sales Office.

— WEEK OF 8/18 —

Thursday, 8/21

BERA Bridge Club

7 p.m., Brookhaven Center. Morris Strongson, Ext. 4192, mms@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. Enter 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.

BNL Garden Enthusiasts Swap Plants



Roger Stoutenburgh DN100703

Some 20 cars owned by green-thumbed BNLers met at the gazebo near the ballfields at lunchtime on June 24 to take part in a "Garden Enthusiasts' Tailgate Swap." Pictured above are: (from left) Kathy Ratto, Ken White, Beth Blevins, Rich DeRocher, Ken Mohring, Georgia Irving, and Susan Pepper, who all came armed with plants. A similar event was held last year, and this year's organizers, Beth Blevins, Rich DeRocher, Barbara Hoffheins, Georgia Irving, Susan Pepper, and Nedy Santiago, plan to hold another swap next year. "It's fun to swap, not only plants but also gardening ideas and tips," says Blevins. "We also gave plants to several newcomers to Long Island. They found it especially useful in starting out their gardens."

Lab Services for All Medical Plans

Beginning this August 1, Quest Diagnostics will be the provider for laboratory services for all of BNL's medical plans (Aetna, CIGNA, HIP, and Vytra). Quest Diagnostics has numerous centers throughout the country. If your physician requires you to have laboratory tests conducted, you can locate a service center on the web at www.questdiagnostics.com/hcp/psc/jsp/hcp_psc_index.jsp. For more assistance, contact the Benefits Office, Ext. 5126 or 2877.

Hospitality Committee Bus Trip to NYC, 7/19

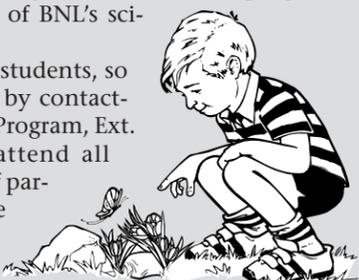
Spend a day in the city on Saturday, July 19, when the Hospitality Committee is organizing a bus trip to Manhattan. See details in the Calendar, above right.

Summer Science Explorations

Science Camp for Elementary School Scientists

All BNLers are invited to register their children in BNL's Summer Science Explorations Program, which is organized by the Lab's Science Museum. The three-day summer camp will be held from Tuesday to Thursday, August 12-14, from 8:30 to 11:30 a.m. and will provide students who are entering the 4th, 5th, and 6th grades the opportunity to have hands-on experience in environmental research and field study, exploration of the mysteries of the sun, program interaction with members of BNL's scientific staff, and more.

Space is limited to 30 students, so register your child early by contacting the Science Museum Program, Ext. 4495. Children must attend all three days; the parents of participating children are also welcome.



Blues Concert at BNL, 7/25 Featuring Sam Taylor, Wolfe

The BNL Music Club and the Long Island Blues Society are sponsoring a blues concert, "Soaring with the Bluz," at Berkner Hall on Friday, July 25, 8-11 p.m. Featuring Sam "Bluzman" Taylor and the band Wolfe, the concert is open to the public. All visitors age 16 and over must bring a photo ID to be admitted on site.

Tickets for the concert are available at the BERA Sales Office in Berkner Hall, at \$15 per person. They must be bought in advance; no tickets will be sold at the door. For more information, call 631 344-3846, or send an e-mail to jjv@bnl.gov.

Flexible Spending Accounts Claims Process Change

New privacy regulations under the Health Insurance Portability & Accountability Act require that all flexible spending account participants use a separate claim form for each family member when submitting receipts for reimbursement.

Claim forms may be obtained from the Benefits website at http://www.bnl.gov/HR/PDF/Benefits/FSA_health.pdf for healthcare reimbursements and http://www.bnl.gov/HR/PDF/Benefits/FSA_Dep.pdf for dependent care reimbursements or by contacting the Benefits Office, Ext. 2877 or 5126.

BERA Trips: Ellis Island, 8/16, Yankees, 8/8, 9/12

Saturday, August 16: BERA trip to Ellis Island and the Statue of Liberty. The cost of \$39/adult and \$36/child over 5 covers bus, ferry, and tour. The luxury coach will leave promptly at 8:30 a.m. from the Brookhaven Center and return at 4:30 p.m.

Friday, 8/8: BERA trip to see the Yankees, \$55/person. Friday, 9/12: Yankees trip, \$55/person. Both luxury coaches to the N.Y. Yankees will leave the Brookhaven Center at 4 p.m.

Pay for trips at the BERA Sales Office, weekdays, 9 a.m.-3 p.m.

Classified Advertisements

(cont'd.)

Wanted

APARTMENT - 3rd-year student at NYIT, Westbury, needs studio/room to rent beginning Sept. Stephanie, Ext. 7141 or 325-8353.

BALL HITCH - 2" to bolt to minivan; bobcat, to rent, small, w/tracks & forks. Jim, Ext. 5537.

CAMERA - If you want to replace your old fashioned Olympus OM-2S w/an up-to-date digital camera, I'd like to buy it. Lore, Ext. 4386 or 516-671-3975.

CHILDREN'S PLAY EQUIPMENT - outdoor toys, tables, structures, etc. wanted for children ages 1--8. Ken, Ext. 2715 or 929-6744.

GAME PRIZES - for non-profit senior center, knickknack, costume jewelry, coin purses, jewelry box, others, all appreciated. Karen, Ext. 4262.

LADDER - Type-1 extension ladder, 28 ft. or longer, reasonable; wood splitter, gas powered, hydraulic, working cond., up to \$400. Mike, Ext. 7861 or 821-4064.

PLAYSTATION 1 BARBIE RACE & RIDE - used. Donna, Ext. 6044.

RESEARCH VOLUNTEERS - men and women who smoke cigarettes, ages 18 and over, are needed for MRI study. Strictly confidential, fee provided. 344-2773.

TOY TRAINS - looking for Lionel, American Flyer & others, excel. prices paid. Marion, 281-5667.

TRAINS - Lionel, American Flyer & others, cast metal toys, high cash paid, also have some sets for sale. Bruce, 924-4097.

TROMBONE - in good cond. for beginner, reasonable. Toni, Ext. 5257.

Community Involvement

PARTICIPANTS WANTED- for road rally & car show, 7/27, support Megan's Law, fun prizes, win car, cash, for more info. call 689-2672.

Happenings

FINE ART SHOW, SALE - Patchogue Garden Club's 3rd. Ann. Outdoor Juried Art Show, Sun, 7/27, rain date 8/3, in gardens of S. Ocean Ave./Terry St., one block so. of Main St., 10 a.m.-5 p.m. Classical guitar, 2-4 p.m. Free, open to all. Contact Lynn, 447-6986.

Farewell Gathering

BROTHER REMEMBERED - Steven Halderman of Central Shops invites friends and co-workers to a ceremony to be held by Suffolk County to honor the memory of his late brother, firefighter David Halderman of Squad 18 of the New York Fire Department, who gave his life in service to others on 9/11 at the WTC. On Fri., 7/25, at 11 a.m., at the Suffolk Ave/Willoughby St. intersection in Brentwood, part of Suffolk Avenue will be renamed in honor of David. A luncheon will follow at the Irish Coffee House, East Islip. To attend the lunch, contact Steve Halderman, Ext. 3499 or steve@tllart.com, or Mark Walker, Ext. 3499.

In Appreciation

To my colleagues & friends who expressed their sympathy & condolences following the death of my granddaughter - we are deeply grateful. You have helped to ease our burden. Thank you. — Joseph Skelly

THIS SUNDAY, 7/13 CHEMISTRY



BNL's annual Summer Sunday Tours will begin on July 13 and continue for seven Sundays until August 24, with exciting interactive exhibits and an inside look at a different Lab facility each week. Admission is free, and no reservations are needed, but to be admitted on site, all visitors age 16 and over must bring photo ID.

Every Sunday, from 10 a.m. to 3 p.m., visitors will see:

- "Brain Matters," a hands-on exhibit on the brain
- "Whiz Bang Science Show," at 10:30 a.m., 12 noon, 1:30 p.m., and 3 p.m. Children and adults can learn scientific principles by watching lively, interactive demonstrations at this fun show
- Poster on the 2002 Nobel Prize in Physics won by BNL scientist Ray Davis
- Camp Upton Historical Collection: memorabilia from World Wars I & II.

On Sunday, July 13, at the Chemistry Department, demos will include:

- Glassblowing — watch glass being heated and blown
 - Memory Metal — bend it or twist it, but it remembers its shape!
 - Making Slime — hands-on!
 - Oscillating Reactions — see colors switching back and forth
 - Iodine Clock Reaction — how long will it take to react?
 - Cooling helium balloons vs. carbon dioxide balloons
 - Neutrinos — learn about ghost-like particles of matter
 - Balancing Chemical Equations
 - Space Shuttle Tiles
 - Making Nylon
 - Superball Polymers — hands-on!
 - Radioactivity in everyday life
 - LEAF Tour — "see" very fast chemical reactions
- Also, scientists will give talks on "Imaging Addiction" — research on different kinds of addiction; and "Chemiluminescence" — chemical reactions that give off light.

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/HR/jobs/default.htm.

OPEN RECRUITMENT — Opportunities for Laboratory employees and outside candidates. MK3868. ASSOCIATE SCIENTIST (S-2) — Requires a Ph.D. in nuclear physics, 5 years of experience in low energy nuclear structure or nuclear reaction physics research, strong computer skills (UNIX/Linux, Java, HTML), and interest in nuclear physics databases. Will be involved in research and development of evaluated nuclear structure data file ENSDF, evaluated nuclear reaction data file ENDF and related databases; database application development; development of electronic services to meet data needs of nuclear research and nuclear application communities. Under the direction of P. Oblozinsky, Energy Sciences & Technology Department.

MK2621. SCIENTIFIC STAFF POSITION — Requires a Ph.D. in accelerator physics or related field and significant experience in the areas of the design, commissioning and operation of storage ring light sources. This position is with the Accelerator Division of the NSLS. The scientist will be actively involved

in the R&D for the next light source at the NSLS as well as the continued development of the existing NSLS facility. Under the direction of J. Murphy, National Synchrotron Light Source Department.

MK2620. POSTDOCTORAL RESEARCH ASSOCIATE — Requires a Ph. D. in accelerator physics or related field and experience in the area of storage rings. This position is with the Accelerator Division of the NSLS. The research associate will perform R&D on lattice design and collective effects for high brightness storage rings as well as contribute to the implementation of new insertion devices and performance optimization of the existing NSLS storage rings. Under the direction of J. Murphy, National Synchrotron Light Source Department.

MK2833. POSTDOCTORAL RESEARCH ASSOCIATE — Requires a Ph.D. in physical or organic chemistry, chemical engineering or physics with extensive experience in the use of techniques for surface characterization with knowledge in the use of synchrotron facilities. Will participate in studies of the structural, electronic and chemical properties of catalytic materials (metals, oxides, sulfides, carbides). The objective of these studies is to generate basic knowledge that can be used for a scientific design of industrial catalysts, and the experimental work will involve the use of ultrahigh-vacuum techniques for surface characterization and a chemical reactor for catalytic studies under high-pressure conditions. A substantial part of the research will be carried out at beam lines of the NSLS; UV floor (single crystals, photoemission, NEXAFS) and x-ray floor (high-surface area catalysts, time-resolved XRD, NEXAFS/EXAFS). Under the direction of J. Rodriguez, Chemistry Department.

MK2834. POSTDOCTORAL RESEARCH ASSOCIATE — Requires a Ph.D. in chemistry or related field, experience in laser and molecular beam studies of chemical reaction dynamics, and a record of publications in leading journals. Experience in photodissociation, photoionization, ion imaging, VUV generation, high vacuum techniques, and molecular spectroscopy is highly desirable. Research will involve using ion imaging techniques to probe elementary reaction dynamics relevant to combustion and atmospheric chemistry. Under the direction of A. Suits, Chemistry Department.

MK2810. POSTDOCTORAL RESEARCH ASSOCIATE — Requires a Ph.D. in radiation biology, biochemistry or molecular biology, good communication skills and the ability to

interact with all levels of staff. Position may require travel to collaborating institutions, and there is a potential for participation in the NASA-funded Heavy Ion Radiobiology Program. Will study the molecular aspects of induction and repair of radiation-induced DNA damage clusters in DNA and in mammalian cells, especially damages induced by radiation found during space travel outside the magnetosphere. Under the direction of B. Sutherland, Biology Department.

MK3460. POSTDOCTORAL RESEARCH ASSOCIATE — Requires a Ph.D. in organic chemistry or closely related field with skills in analytical methods (i.e.: HPLC, NMR, FLIR), and good communication skills with the ability to work independently or in a group setting. Should have experience with radiochemistry and radiolabeling, knowledge of inorganic/coordination chemistry and experience in small animal experimentation. Research will involve the development of tin-117m based radiopharmaceuticals for targeting estrogen receptors for breast cancer therapy. Under the direction of K. Kolsky, Medical Department.

NS3099. PROJECT ENGINEER I (Energy Management - P-9) — Requires a bachelor's degree in an engineering discipline, or equivalent, and ten years' related experience including at least five years' experience in implementing large corporate or institutional energy management programs. The ideal candidate will have an in-depth knowledge of energy systems, energy-management controls, energy conservation technologies, metering systems. Engineering economics and cost estimating are also required, as well as effective presentation and communications skills. A master's degree, professional engineering license, and project-management experience are desirable. Will develop energy conservation opportunities, coordinate implementation of these projects, monitor utility services and related regulatory action, coordinate and schedule electric loads both internally and with the supplying utilities, manage an extensive internal metering and billing system, and implement demand-side management programs. Plant Engineering Division.

NS3130. ASSISTANT PROJECT PLANNING SPECIALIST (A-4) — Requires a bachelor's degree in business administration or related field, or the equivalent work experience, and a minimum two years' relevant experience in an area such as project planning or contract administration. Excellent writing skills are essential as is strong proficiency in Word and Excel. Familiarity with all aspects of procurement applying standard methods and procedures within Laboratory policies and regulations is necessary. Must be able to work under pressure, balance priorities and perform multiple tasks. Experience in international projects as well as formal training in Project Management or certification is preferred. Knowledge of BNL systems such as WEB REQ, SBMS and PeopleSoft financials is desirable, as is experience with Microsoft Project. Under general supervision will be responsible for program management functions and contract administration. Will interact with Project Leads and Operations Manager to ensure that activities are properly planned, executed and controlled in order to meet project requirements. Will be responsible for: preparing and maintaining project GANTT Charts; monitoring of costs and commitments ensuring completion of activities within budget; monitoring financial reports and gathering, analyzing, and organizing information into monthly and quarterly reports; documenting project phases by preparing and maintaining Contract Summary spreadsheets; coordinating activities and interacting with various BNL departments, subcontractors, and other Laboratory personnel; preparing statements of work and requests for contracts; reviewing invoices for allowable and unallowable costs; and reviewing, correctly handling, and filing deliverables and reports. Must have or be able to obtain and maintain a DOE "Q" clearance. Nonproliferation & National Security Department.

Motor Vehicles & Supplies

02 TOYOTA TACOMA - forest green, a/t, a/c, p/s, p/b, excel. cond., cap, tape deck, bedliner, 3K mi., \$13,775. Celeste, Ext. 2551 or 878-4356.

01 SUBARU FORESTER - all power, am/fm/CD player, 42K mi., excel. cond., \$13,400. Ext. 8490.

00 SUZUKI ESTEEM - 1.8, 4-cyl., new tires, new stereo, 55K mi., \$5,000. Samantha, Ext. 3471.

01 NISSAN ALTIMA - all power, ABS, am/fm/CD player, 42K mi.; 00 Toyota Camry, all power, ABS, 32K mi., \$14,900; both mint cond. & dealer serviced. Ext. 3405 or 345-9859.

00 YAMAHA YZF600 R6 - Vance & Hines pipe, stage-1 jet kit, Shoei helmet, gloves, jacket, tank bag, new rear tire, bike cover, garage kept, 5,500 mi., \$5,000. Travis, Ext. 7451.

99 HONDA CIVIC SI COUPE - 5-sp., v. clean, every factory option, v. rare car, 160HP DOHC VTEC, \$1,200 wheels, ext. warr., Honda recert. 8/02, 68,500 mi., \$12,000. Michael, 821-1824.

99 HYUNDAI ACCENT L - 5-sp., alarm, keyless entry, must sell, \$2,950 obo. 51K mi., Ext. 6263.

99 MITSUBISHI MIRAGE - a/t, a/c, p/s, p/b, excel. cond., 56K mi., \$4,400; 97 Saturn SL2 - all power, ABS, spoiler, excel. cond., 92K mi., \$3,900. Robert, 476-5772.

99 VOLKSWAGON PASSAT - cert. pre-owned vehicle, excel. cond., 9K remaining on BB warr., auto/5-sp., 6-disk changer, new tires & brakes. Michele, Ext. 3281 or 732-1028.

96 CHEVY CAVALIER - a/t, a/c, p/s, 82K mi., fm/am/cass. player, flip-up roof, good cond., \$2,800. Ext. 8490.

96 MAZDA PROTEGE - blue, 5-sp., a/c, p/s, p/b, excel. cond., one owner, new tires, 97K mi., \$2,900. Madina, 872-3550.

96 TOYOTA CELICA GT - white, black top & int., all power, excel. cond., new eng., dealer maint. since new, 75K mi., \$12,000. Mary, Ext. 6344 or 929-3388.

95 CHEVY S10 BLAZER - black, 196K mi., all power, 4wd, leather, roof rack, trailer hitch, good cond., \$2,100. Leo, Ext. 3103 or 728-0992.

95 GEO PRIZM - 4-dr., a/c, auto., 119K mi., pampered, clean, \$2,800. Tony, 929-4903.

95 PLYMOUTH GRAND AM GT - green, 2-dr., auto., runs well, \$2,999 obo. Claudia, Ext. 3467.

96 VOLKSWAGON GOLF - green, a/t, a/c, p/s, p/b, alarm, 92K mi., \$4,000; 95 Plymouth Voyager, white, a/t, a/c, p/s, p/b, 117K mi., remote starter, \$2,500; Ext. 7013 or 698-5294.

94 BUICK REGAL - low mi., leather int., excel. cond., avail. 7/24, \$5,300. Russ, Ext. 7759.

94 DODGE INTREPID - all power, 109K mi., alarm, keyless entry, 4-dr., dual airbags, great cond., \$3,000. Scott, Ext. 7197 or 580-2940.

94 MAZDA 626 - all power, moonroof, clean, excel. cond., 110K mi., \$3,850. Jim, Ext. 5018 or 689-3063.

94 NISSAN SENTRA - a/t, a/c, p/s, p/b, 105K mi., great station car, new brakes, needs cleaning, \$1,000. Denis, Ext. 4612 or 929-0767.

92 MERCURY GRAND MARQUIS - maroon, full power accessories, good fuel economy, 140K mi., very clean throughout, quiet & luxurious, \$3,200. Bob, Ext. 3401 or 744-6229.

92 MERCURY SABLE - blue station wagon, 3.8L, all power, ABS, airbags, 3rd seat, 160K mi., \$1,500. Roy, Ext. 7531 or 929-3550.

92 MITSUBISHI ECLIPSE - black, 2-dr., a/c, p/s, 110K mi., new tires, runs well, \$900 obo., must go. Ext. 3838 or 744-2940.

92 TOYOTA TERCEL - a/t, 120K mi., 2-dr., 8K mi. on rebuilt eng., new battery, dependable, good cond., \$1,100. Diana, 929-1693.

90 ACURA INTEGRA RS - 5-sp., 167K mi., a/c, p/s, p/b, new tires, muffler, good cond., \$1,800. Leonard, Ext. 4457.

90 VOLVO 740 GLE - excel. body, runs very well, 100K mi., sunroof, all power, leather int., \$3,500. Pat, Ext. 7192.

90 VOLKSWAGON JETTA - runs, needs muffler, 180K mi., good for parts, \$500. Gregory, Ext. 4331.

89 MAZDA MPV - V6, 7 pass., loaded, new brakes, struts, shocks, tires etc., excel. cond., \$2,100. Al, Ext. 7262.

88 HONDA ELITE 50 - red scooter, good cond., 1,800 mi., \$750. Neville, Ext. 5346 or 874-2730.

87 NISSAN MAXIMA - a/t, a/c, p/s, p/w, 6-cyl., 140K mi., excel. cond., second own., \$1,300. Sophie, 882-0469.

86 CHEVY ASTROVAN - a/t, p/s, p/b, 125K mi., \$500. Pierrot, Ext. 2589 or 758-4328.

86 HONDA ACCORD - 5-sp., 168K mi., runs well, need exhaust, \$300. Thomas, Ext. 2225.

86 HONDA CIVIC SI - red, 5-sp., runs well, fuel injected, ext. is very good, int. excel. cond., 34mpg, 113K mi., \$875. Charlie, 924-5638.

84 LINCOLN TOWNCAR - a/c, all power, digital dash, CD changer, 117K mi., \$1,199. Tom, Ext. 3479 or 645-6110.

70 FORD MUSTANG - metallic blue conv. w/ white top, a/t, p/s, 302 V8, 2-barrel, duel exhaust, rebuilt tranny, new carpets & mats, 115K mi., \$15,000. Marion, Ext. 5087 or 281-5667.

GO CART - Manco, 5hp, single seat, excel. cond., \$500. 567-9025.

GO CART - old model, collectors item, runs well, \$300. Brandon, 399-3098.

TRUCK CAP DOOR - walk in door for A.R.E. full-size truck cap, \$50 obo. George, Ext. 3120 or 369-4334.

Boats & Marine Supplies

23' COBIA - '86, cuddy cabin, dive platform, 190 HP I/O, full covers, good cond., \$3,700. Bob, Ext. 7779 or 929-4753.

22' CRUISER INC. BARNAGAT - 305 Chevy Mercruiser I/O, V-Berth, Pt.-a-Potty, sink, stove, Tandem axle trailer, power winch, in water, \$3,600. Peter, Ext. 4038 or 878-6505.

22' WESTERLY SAILBOAT - twin keel, fiberglass, clean, newly painted, many extras, needs some work, \$2,500. 744-3569.

18.5' WELLCRAFT - 100hp Evinrude eng., boat, trailer, eng. all in good running cond., many extras, best offer. 751-2149.

15' GRUMMAN CANOE - alum. w/paddles, excel. cond., no trailer, \$450. Lloyd, 587-7876.

10' FUNBOAT WAVERUNNER - '90, 30hp Tohatsu, trailer, new pwr. pack, needs upper bearing, \$850. Tirre, Ext. 3288 or 281-0360.

CRUISER INC. - '87, 286 rouge twin 350 Mercs., sleeps 6, camper, canvas, in water, clean, \$21,000. 252-8398.

OUTBOARD - for sailboat, w/trailer, British Seagull Osprey, long shaft, '98, new, never used. Ext. 7699.

Furnishings & Appliances

BEDROOM SET - armoire, dresser, night table, backboard, bedframe, coffee table, end table, dark wood, good cond. \$500. Gordon, Ext. 7182.

BEDROOM SET - queen, grey wood Formica platform bed; lg. dresser w/mirror; 2 end tables, mint, \$400; entertmt. ctr., \$100; 5-pc. outdoor furn., \$350 neg. Sue, 929-2867.

CAPTAIN'S BED - solid wood w/headboard, 4 drawers, 1 cubby, mint cond., \$500. Patty, 331-4336.

ENTERTAINMENT CENTER - good cond., glass encl. for stereo, also encl. for VCR tapes & CDs. Tim, Ext. 4661 or 722-2125.

FURNITURE - 100 gal. fish tank, 7-pc. bdrm. set, Castro conv., wall unit, weights, much more, call for prices. Steven, 399-2346.

FURNITURE - entertainment center, \$50, desk, \$30, computer desk, \$30, dresser, \$30, console, \$25, crib, \$50 neg. William, Ext. 3748 or 331-6493.

GIRL'S BEDROOM SET - 7-pc., white, excel. cond., canopy bed, trundle bed, dresser hutch, corner desk, mirror, bedside table, \$600. George, Ext. 3262 or 744-3144.

REFRIGERATOR - Frigidaire, 21.5 cu. ft., 8 yrs., like new, top freezer, bottom fridge, almond, \$225 neg. Rich, 289-5570.

SOFA & CHAIR - Early American custom made, excel. cond. Selest, Ext. 2551 or 878-4356.

SOFA - burgundy, 3-pc. sofa set incl. lg. sofa love seat & chair, \$200. Ext. 3085 or 924-2660.

TRESTLE TABLE - honey pine, 2 leaves, 4 chairs, \$150. Kelly, Ext. 7746 or 580-2940.

UMBRELLA TABLE - redwood w/4 benches, matching lazy Susan, Allied Kaufman Mfg., \$200; bdrm. set: bamboo trim dbl. dresser w/mirror; desk w/hutch, chain, \$200. 473-0963.

Tools, House & Garden

AIR CONDITIONER - 8000 Btu, used 1 1/2 seasons, CAC installed, \$260. Danielle, 863-0383.

BANDSAW - 10 in., \$45. Edward, Ext. 4188 or 218-7609.

DEHUMIDIFIER - works very well, \$55; chainsaw, McCulloch 14" & 16", \$60. Joe, Ext. 3783 or 929-8321.

LADDER JACKS - 1 pair, alum., like new, \$50; Porch jacks used but good cond., \$5/ea. George, Ext. 3262 or 744-3144.

LAWNMOWER - Snapper, 21", no bag, \$40; Sears rear bagger, 21", w/bag, \$40. Walter, 567-9025.

SNAPPER RIDING LAWNMOWER - just serviced, excel. running cond., \$300. Paul, Ext. 5829 or 289-9152.

STOVE - GE Spacemaker self cleaning w/microwave, excel. cond., \$100. Lloyd, 587-7876.

Sports, Hobbies & Pets

BICYCLE - men's 27", 10-sp., \$40; women's 27", 10-sp., good cond., \$40. 567-9025.

BIKE - Huff, 10-sp., men's, \$40. Celeste, Ext. 2551 or 878-4356.

BODY BUILDING EQUIPMENT - dumbbells, 35 lbs. to 110 lbs, plus racks, 1 universal pick back, latts, triceps, plus benches, \$2,250. Tony, Ext. 7861 or 281-4799.

SOLAR POOL COVER - fits 15 ft. round pool, excel. cond., used only 2 months, \$30. Toni, Ext. 5257.

UNIVERSAL WEIGHTBENCH - Joe Weider, stack weights, lat pulldown, peck deck, benchpress, \$100. Peter, Ext. 4028 or 878-6505.

Audio Video & Computers

CASSETTE DECK PLAYER - Onkyo, \$75 neg. Sue, 929-2867.

COMPUTER - Acer computer w/Pentium (MMX), keyboard, mouse, CD burner, no monitor, works but needs new video card, \$50. Jim, Ext. 2432 or 821-9178.

COMPUTER - w/ASUS, P133, 64M, 2G, sound, ethernet, modem, K/M, 32XCDROM, 17" SVGA & dancing carpet for fitness, like dancing in Sports Plus. Ext. 8401 or 680-0245.

COMPUTER - 1.4 GHZ, 30GBHD, 750 MB, RAM, CD burner, floppy, 15" monitor, \$225. John, Ext. 5100.

NETWORK CARD - 2 Linksys LNE 100TX, 10/100 NIC, new, \$5/ea. obo. Ext. 5268 or 295-5474.

TONER CARTRIDGE - HP Laserjet, for 5L, 6L or 3100, \$10. Joyce, 289-5770.

Miscellaneous

CAMPSTOVE - 2 burner, double mantel lantern w/16 oz. propane cylinder, 6 gal. water can-tainer, new seat-a-tree, portable seat, portable sink. Barbara, 744-9802.

CONCERT TICKETS - 2 Westbury Music Fair, 7/25, Foghat, Grandfunk Railroad, Leslie West & Corky Laing of Mountain. Lisa, Ext. 7524.

LITTLE TYKES PLAY HOUSE - & triangle shaped platform w/slide, a little faded, but otherwise in good shape, \$40/ea. Mark, Ext. 2488 or 744-9308.

Free

CONVERTIBLE SOFA - dark walnut convertible sofa, you pick up. Denis, Ext. 4612 or 929-0767.

FREEZER - Kelvinator, 16 cu. ft., 10 yrs. old, manual defrost, you pick up. Agnes, 727-1483.

HP LASERJET 5L - needs roller replacement. Joyce, 289-5770.

Wanted

APARTMENT - third year student at NYIT, Westbury needs studio or room to rent beginning in Sept. Stephanie, Ext. 7141 or 325-8353. (continued on page