

## Tiny Tubes, Rods Show Promise As Catalysts, Sunscreen

Scientists at BNL have developed new ways to make or modify nanorods and nanotubes of titanium oxide, a material used in a variety of industrial and medical applications. The methods and new titanium oxide materials may lead to improved catalysts for hydrogen production, more efficient solar cells, and more protective sunscreens.

The research is published in two papers now available online, one in *Advanced Materials*, and the other in the *Journal of Physical Chemistry*. This research, which has clear connections to improved energy technologies, was funded by the Office of Basic Energy Sciences within DOE's Office of Science.

The lead author on both papers is Wei-Qiang Han, a scientist at BNL's Center for Functional Nanomaterials (CFN). Han's collaborators on the *Advanced Materials* paper include Lijun Wu, Robert F. Klie, and Yimei Zhu, all of the CFN. For the *Journal of Physical Chemistry* paper, collaborators include BNL chemists Wen Wen

and Jonathan Hanson; Ding Yi, Mathew Maye, and Oleg Gang of the CFN; Zhenxian Liu of the Carnegie Institution of Washington; and Laura Lewis, formerly at the CFN and now at Northeastern University.

Materials developed in these studies were analyzed using several of BNL's unique tools and methods for the characterization of nanostructures, including transmission electron microscopy and various techniques using x-ray and infrared beams at the National Synchrotron Light Source (NSLS).

### Titanium oxide and light

In the first study, the scientists enhanced the ability of titanium oxide to absorb light.

"Titanium oxide's ability to absorb light is one of the main reasons it is so useful in industrial and medical applications," said Han. It is used as a photocatalyst for converting sunlight to electricity in solar cells and also has applications in the production of hydrogen, in gas sensors, in batteries, and in using sunlight to degrade some

environmental contaminants. It is also a common ingredient in sunscreen.

Many scientists have explored ways to improve the light-absorbing capability of titanium oxide, for example, by "doping" the material with added metals. Han and his coworkers took a new approach. They enhanced the material's light-absorption capability by simply introducing nanocavities, completely enclosed pockets measuring billionths of a meter within the 100-nanometer-diameter solid titanium oxide rods.

The resulting nanocavity-filled titanium oxide nanorods were 25 percent more efficient at absorbing certain wavelengths of ultraviolet A (UVA) and ultraviolet B (UVB) solar radiation than titanium oxide without nanocavities.

"Our research demonstrates that titanium oxide nanorods with nanocavities can dramatically improve the absorption of UVA and UVB solar radiation, and thus are ideal new materials for sunscreen," Han said.

The cavity-filled nanorods could also improve the efficiency of photovoltaic solar cells and be used as catalysts for splitting water and also in the water-gas-shift reaction to produce pure hydrogen gas from carbon monoxide and water.

The method for making the cavity-filled rods is simple, says Han. "We simply heat titanate nanorods in air. This process evaporates water, transforming titanate to titanium oxide, leaving very densely spaced, regular, polyhedral nanoholes inside the titanium oxide."

### Titanate nanotubes

In the second paper, Han and his collaborators describe a new synthesis method to make iron-doped titanate nanotubes, hollow tubes measuring approximately 10 nanometers

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## Thomas Ludlam Named Physics Department Chair

Thomas Ludlam has been named Chair of the Physics Department, effective September 1. He succeeds Sally Dawson, who had served in the position for two years.

The Physics Department has a staff of 275 and an annual budget of about \$80 million for nuclear and particle physics research, primarily funded by DOE. The department's research focuses on investigating the structure and behavior of subatomic particles.



Roger Stoutenburgh D1910807

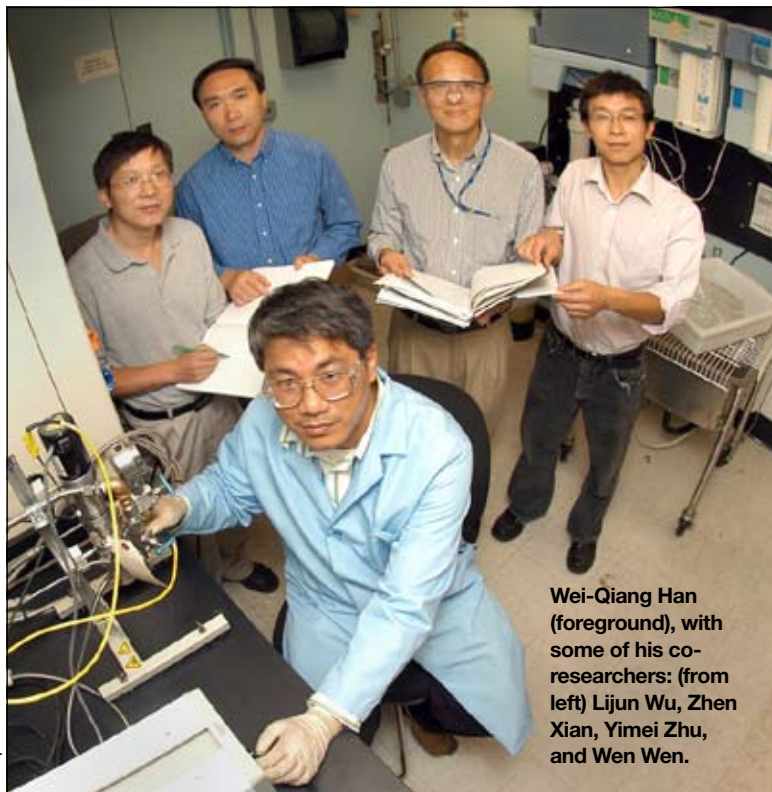
"It is an honor for me to have been chosen for this position," Ludlam said. "Having done my earliest research at Brookhaven, I've had many role models here. Since its inception 60 years ago, this department has been in the thick of a remarkable era of scientific discovery. We have a history of attracting world-leaders in physics, and I plan to maintain that standard of excellence for the department."

Ludlam has played a major role in the development of BNL's largest accelerator, the Relativistic Heavy Ion Collider (RHIC), from its design stage starting in the early 1980s to its detectors and research programs. In 2005, RHIC physicists discovered a "perfect" liquid, a new state of matter made from quarks and gluons that they believe existed one-millionth of a second after the Big Bang. Plans are currently under way for a major upgrade of the accelerator, called RHIC II, to provide a tenfold increase in its scientific reach.

Besides working on physics theory and experiments at the Lab, BNL physicists are involved in numerous diverse projects around the world, Ludlam says. They have played a major role in building the ATLAS detector for the Large Hadron Collider, soon to be the world's most powerful particle accelerator, at the CERN laboratory, near Geneva, Switzerland, and they will participate in experiments at the new collider upon its completion, scheduled for 2008.

In addition, a team of BNL physicists is engaged in one of the most advanced experiments to study the properties of neutrinos, elusive particles of fundamental importance to understanding subatomic structure, in an international effort using a cluster of nuclear power generators at Daya Bay, China. They also plan to continue their participation in neutrino research at the Homestake Mine in South Dakota, where Raymond Davis Jr. of the BNL Chemistry Department was the

(continued on page 2)



Wei-Qiang Han (foreground), with some of his co-researchers: (from left) Lijun Wu, Zhen Xian, Yimei Zhu, and Wen Wen.

Joseph Rubino D1890907

## 427th Brookhaven Lecture, 9/26

## Wang on Overeating — Is This Behavior Similar to Drug Addiction?

The increasing number of obese individuals in the U.S. and in many countries in the world adds urgency to the need to understand the mechanisms underlying pathological overeating. Evidence is mounting from research at BNL and elsewhere that similar brain circuits are disrupted in drug addiction and in obesity. Studies at the Lab using positron emission tomography (PET) implicate the involvement of brain dopamine in normal and pathological food intake in humans.

To learn more about the similarities between overeating in obese individuals and the loss of control and compulsive drug-taking behavior observed in drug-addicted subjects, join Medical Department Chair Gene-Jack Wang as he gives

the 427th Brookhaven Lecture, on "Overeating Behavior — Is It Similar to Drug Addiction?" Wang will give the lecture on Wednesday, September 26, at 4 p.m. in Berkner Hall. All are invited to attend this free event, which is open to the public. Visitors of 16 and over must carry a photo ID. Refreshments will be offered before and after the talk, and those who wish to accompany the lecturer to have supper at a restaurant off site afterwards should contact Amalia Ruggiero, alr@bnl.gov or Ext. 2837.

In his talk, Wang will discuss PET studies he and his colleagues have done at BNL that show that multiple but similar brain circuits — reward, motivation, learning, and inhibitory control — are disrupted

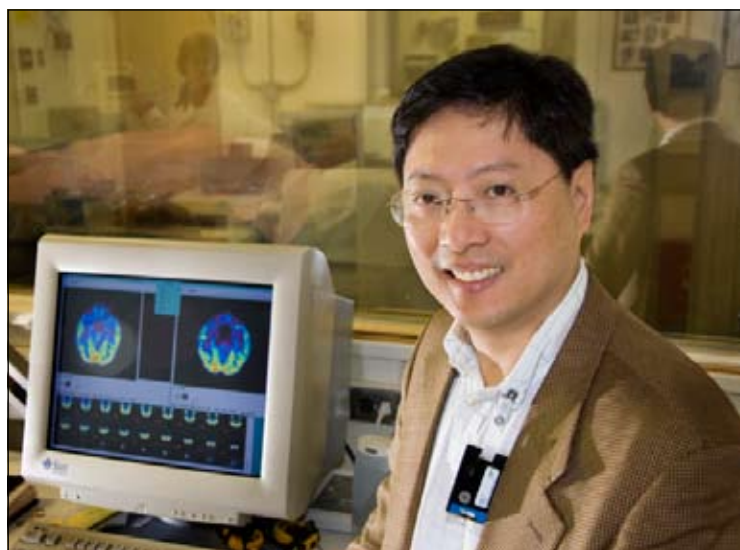
in drug addiction and obesity. In conclusion, he will suggest that the results of the investigations implicate the need for a multimodal approach in the treatment of obesity.

Gene-Jack Wang received his M.D. from Kaohsiung Medical University, Taiwan, in 1980, and a master's degree in radiation health sciences from The Johns Hopkins University in 1984. He joined Medical in 1990, became clinical head of the PET imaging group in 1996 and senior medical scientist in 2005. In October 2006, he was named Chair of Medical.

Wang is also a professor at Stony Brook University (SBU) as well as the Associate Director of the SBU-General Clinical Research Center at BNL. He is a visiting scientist in the Divi-

sion of Nuclear Medicine at North Shore University Hospital, attending physician in the Division of Nuclear Medicine at

Glen Cove Hospital, and Professor of Psychiatry at the Mount Sinai School of Medicine, New York University. — Liz Seubert



Roger Stoutenburgh D1051106

CALENDAR

OF LABORATORY EVENTS

- The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- 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, Advanced classes. Various times. All are welcome. Learn English, make friends. See [www.bnl.gov/esol/schedule](http://www.bnl.gov/esol/schedule).html for schedule. Jen Lynch, Ext. 4894

Mondays: BNL Social & Cultural Club

Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, [alforque@bnl.gov](mailto:alforque@bnl.gov)

Mondays: Pilates

Noon-1 p.m. Rec. Hall. Ext. 5090

Mondays & Wednesdays: Pilates

5:15-6:15 p.m. Rec. Hall. Ext. 5090

Mondays: Jiu Jitsu Club

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

Mondays & Thursdays: Kickboxing

\$5 per class. Noon-1 p.m. in the gym. Registration is required. Ext. 8481

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

Noon-1 p.m., B'haven Center North Rm. Adam Rusek, Ext. 5830, [rusek@bnl.gov](mailto:rusek@bnl.gov)

Tue., Thurs. & Fri.: Ving Tsun Kung Fu

Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, [bradley@bnl.gov](mailto:bradley@bnl.gov)

Tues. & Thurs.: Jazzercise

Noon, Rec. Hall. Ext. 5090

Tuesdays: Hospitality Coffee

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

Tuesdays: BNL Music Club

Noon, B'haven Center, North Room. Come hear live music. Joe Vignola, Ext. 3846

Tuesday & Thursday: Aerobic Fitness

5:15 p.m., Rec. Hall. 10 classes for \$40 or \$5 per class. Pat Flood, Ext. 7866, [flood@bnl.gov](mailto:flood@bnl.gov)

Tuesday & Thursday: Aqua Aerobics

5:30-6:30 p.m., Pool. Ext. 5090

Tuesdays: Toastmasters

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

Tue., Wed. & Thu: Rec Hall Activities

5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Wednesdays: On-Site Play Group

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

Wednesdays: Ballroom Dance Class

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

Wednesdays: Weight Watchers

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

Wednesdays: Yoga

Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, [ila@bnl.gov](mailto:ila@bnl.gov)

Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholz, Ext. 2027

Fridays: Family Swim Night

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

Fridays: BNL Social & Cultural Club

Noon-1 p.m., B'haven Center, South Room, free beginners dance lessons. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, [alforque@bnl.gov](mailto:alforque@bnl.gov)

CIGNA: Tuesdays, Bldg. 400

A CIGNA Healthcare representative will be on site in Human Resources, Bldg. 400, on Tuesdays, to assist with any claims issues that you have been unable to resolve yourself. Janice Petgrave will be available for 30-minute meetings, by appointment only, 10 a.m.-1 p.m. Bring all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

# Then & Now, the Brookhaven Lectures

In September, leaves turn, unfulfilled dreams of days spent in sailing or as a beach-potato ebb away — but, for many BNLeers, an interesting and enjoyable tradition is renewed: the next series of Brookhaven Lectures begins.

Held each month from September to June, the Brookhaven Lectures were started in November 1960 by Gertrude Scharff-Goldhaber, the first woman Ph.D. to join the Lab. As she explained in a “Foreward” to the first lecture, these talks were to provide an intellectual meeting ground for all Lab scientists and fulfill a double purpose: acquaint the listeners with new developments and ideas not only in their own field, but also in other important fields of science; and give listeners a heightened awareness of the aims and potentialities of BNL.

Another point considered by Scharff-Goldhaber was that “Before describing some recent research or the novel design and possible uses of a machine or apparatus, the lecturers attempt to familiarize the audience with the background of the topic to be treated and to define unfamiliar terms as far as possible.”

This challenge is sometimes difficult to meet. One routine that has proved helpful is the pre-lecture rehearsal given by the speaker to a body of scientists who each represent a department or group and together form the Brookhaven Lecture Committee. Meeting some time before the lecture, the committee gives advice on how to keep the lecture informative, yet easier for a general audience to understand. “More pictures!” “Larger type!” “Spell out acronyms!” “Even fewer equations!”

## Cancer Research Walk, 9/30

A BNL team will join the annual 4/6 kilometer walk through Stony Brook Village to raise funds for breast and prostate cancer research, on Sunday, September 30. A brochure with the registration form, walker sponsor sheet, and directions is available at [www.bnl.gov/diversity/womansPrograms/default.asp#Walk\\_for\\_Beauty](http://www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty) or by contacting Joyce Fortunato, Ext. 4229 or [mortimer@bnl.gov](mailto:mortimer@bnl.gov), or Stasia Ann Scocca, Ext. 3979 or [scocca@bnl.gov](mailto:scocca@bnl.gov). Participants are responsible for their registration and fee of \$20 or sponsorship.

## Talk on Sleep for Apnea Sufferers, 9/26

At noon on Wednesday, September 26, in Berkner Hall Room B, Brendan Duffy, Coordinator of the Sleep Disorders Center at St. Charles Hospital will speak on optimal sleep for apnea sufferers. Refreshments will be served. To register, contact Linda DiPierro, Bldg 490/OMC or [dipierro@bnl.gov](mailto:dipierro@bnl.gov).

## Ludlam Named Physics Dept. Chair



first to detect solar neutrinos, a feat that won him the 2002 Nobel Prize in Physics. The mine will be the site of the nation's new Deep Underground Science and Engineering Laboratory, some 8,000 feet underground, due to be completed in 2011.

The department also manages BNL's Accelerator Test Facility, where researchers from national labs, universities and industry carry out R&D on advanced technologies for future accelerators.

“In carrying out this forefront science,” Ludlam said, “one of our goals must be to increase the representation of women and minorities in the department's staff, and to engage our scientists in reaching out to schools and universities to help improve the opportunities for under-represented minorities to become part of the scientific community.”

Thomas Ludlam earned a B.S. in physics from Rensselaer Polytechnic Institute in 1963, and a Ph.D. in physics from Yale University in 1969. He began his career as a physics instructor at Yale, eventually becoming an associate professor of physics. In 1978, he joined the Lab as an associate physicist and rose through the ranks to become a senior physicist in 1994. From 1990 to 1999 he served as Associate Project Head for the RHIC Project. In 2004, he became Associate Chair of Nuclear Physics in the Physics Department. He has served on several national and international advisory panels, including the DOE/National Science Foundation Nuclear Science Advisory Committee, 1991-1994. He has organized and convened numerous conferences, workshops, and scientific and technical reviews related to national accelerator and detector planning.

— Diane Greenberg



(Above) Maurice Goldhaber in 1951  
(Right) Gertrude Scharff-Goldhaber in 1969

are among the wise words that can be distilled from comments made each month. This work has always been worthwhile, and has become even more so, as many more scientists are called on to explain their work to reporters, to the public, and to elected officials who can all be of help in getting support for future funding.

The first Brookhaven Lecture was delivered to an overflow crowd by Harvard University's Edward Purcell, a Nobel Laureate in Physics, 1952, and in 1960 a BNL Research Collaborator in the Physics Department. Purcell spoke on “Radioastronomy and Communication Through Space.” Since then, the lecturers read like a *Who's Who* of BNL, and indeed, of science: for example: the 4th, Gerhart Friedlander on nuclear chemistry; the 5th, Herbert Kouts on neutron physics; the 6th: Ernest Courant on high energy accelerators; the 26th,

George Cotzios on trace metals and life; the 37th, Nicholas Samios on bubble chamber experiments; the 55th, Norman Ramsey, who was to become a Nobel Laureate in Physics in 1989, on early BNL history — and too many more to name here.

By March 1971, the series had reached the 100th lecture, given by Scharff-Goldhaber herself on “Collective Motions in Atomic Nuclei.” Twelve years later, on May 18, 1983, another milestone lecture, the 200th, was delivered by her husband, BNL physicist Maurice Goldhaber, Lab Director, 1961-73, speaking on “The Question of Proton Stability.” This was his second lecture, his first having been the 11th, “Fundamental Particles of Physics,” November 15, 1961. After the 200th lecture,

## Employee Lunch Tour: RHIC Tunnel, 9/28

Below the surface of the BNL site lies one of the world's wonders of engineering and physics. The Relativistic Heavy Ion Collider tunnel will be featured in the next visit of the Employee lunchtime tour on Friday, September 28. All are welcome — employees, facility users, and retirees — to join the group, which will meet in Berkner Hall lobby at noon and return to Berkner by 1 p.m. No reservations are required. All members of the group must wear required safety clothing of long pants and sleeves and closed toed shoes in order to enter the tunnel. For more information, call Ext. 2400.

## Tiny Tubes, Rods as Catalysts, Sunscreen

(cont'd)  
in diameter and up to one micrometer (one millionth of a meter) long. These experiments were also aimed at improving the material's photoreactivity. The scientists demonstrated that the resulting nanotubes exhibited noticeable reactivity in the water-gas-shift reaction.

“Although the activity of the iron-doped nanotubes was not as good as that of titanium oxide loaded with metals such as plati-

num and palladium, the activity we observed is still remarkable considering that iron is a much less expensive metal and its concentration in our samples was less than one percent,” Han said.

The scientists also observed interesting magnetic properties in the iron-doped nanotubes and will follow up with future studies aimed at understanding this phenomenon.

— Karen McNulty Walsh

## English Language Help Available at BNL

The BNL English for Speakers of Other Languages (ESOL) Program offers informal English classes to help with conversational English and opportunities to practice presentation skills. All those working at BNL and their spouses or partners are welcome to participate. For more information, see [www.bnl.gov/esol](http://www.bnl.gov/esol), and contact Jennifer Lynch, ESOL Program Coordinator, at the ESOL Office in Bldg. 400, [jlynch@bnl.gov](mailto:jlynch@bnl.gov) or Ext. 4894.

## LIANS Dinner Meeting, 9/24

The next meeting of the Long Island Chapter of the American Nuclear Society (LIANS) will be held on Monday, September 24, when Paul Stankus of Oak Ridge National Laboratory's Physics Division will talk on “The Really Big Picture: Cosmology in the 21st Century.” The meeting will be held at Brick House Brewery and Restaurant, 67 W. Main St., Patchogue, (631) 447-2337. Complimentary appetizers/cash bar will start at 6 p.m., dinner at 7 p.m., and Stankus's talk at 8 p.m. The cost is \$25/person. Reserve by today, Friday, September 21, with Arnie Aronson, Ext. 2606.



Employee Assistance Program Talk, 9/24  
Stephen Dewey on ‘Alcohol and the Brain’

September is National Alcohol & Drug Recovery Month, and the Employee Assistance Program has arranged a talk to be given by Stephen Dewey of the Medical Department on “Alcohol and the Brain,” on Monday, September 24, from noon to 1 p.m. in Berkner Hall. Key points of Dewey’s talk will be depression and alcohol, intergenerational transmission of alcoholism, and current research and implications for treatment. The talk is open to the Lab community. For more information, call Ext. 4567 or contact Linda DiPierro, Bldg. 4900/OMC or dipierro@bnl.gov.

Fire in the Workplace

Fire in the workplace is a potential hazard faced by all BNL staff. Knowing what to do and whom to notify could save your life and the lives of those around you.

First, **if you discover a fire**, you MUST transmit an alarm immediately. Do this by calling 911 or Ext. 2222 from any on-site phone, or 631-344-2222 from a public phone or cell phone, to report the fire. Alternatively, you can activate the nearest manual fire alarm pull-box, which is usually located near the exit door. Ensure that everyone has evacuated the area, and arrange for someone to meet the arriving fire-fighters and direct them to the fire location. Then, and only then, consider using one of the fire extinguishers located in each work area to try to put out the fire.

**When should you use a fire extinguisher?** Portable extinguishers are not designed to fight large or spreading fires. Even against small fires, the right conditions are needed:

- The extinguisher must be rated for the type of fire at hand.
- The extinguisher must be large enough to put out the fire. Most portable fire extinguishers are fully discharged in as little as eight seconds.
- The extinguisher must be within easy reach, in working order, and fully charged.
- You must know how to use an extinguisher. You will have no time to read directions in an emergency.
- You must be strong enough to operate the extinguisher.
- The fire must be contained to the immediate area.

To the best of your ability, determine what is burning and make sure you have the proper type of extinguisher for the fire. Fire extinguishers are classified according to their ability to handle specific classes and sizes of fires. The labels found on extinguishers provide that information.

Be certain that you have a way to escape both before and after you use an extinguisher. Do not fight a fire if it is too large, or if you do not feel confident that you can extinguish the fire safely. ALWAYS keep your means of egress available -- that is, don't let the fire get between YOU and your ESCAPE route. For more information on types of fire extinguishers and their proper use, see <http://training.bnl.gov/course/FireExt/post/index.htm>.

In Memoriam

**Frank Mignano**, who joined the Plant Maintenance Division as a janitor on August 7, 1967, and retired as a painter A on February 28, 1990, died on November 28, 2006. He was 81.

**James Nekerman**, who joined the Plant Maintenance Division on August 20, 1962, as a heavy equipment mechanical operator, died at 78 on January 4, 2007. He retired as a rigging supervisor on October 13, 1989, returning in to work in 1995 and 1996 as a Lab guest contractor.

**Budd Pollock** joined the Lab on May 19, 1947, with life number 809, as a technician A in the Physics Electrical Division, and died at 90 on January 14, 2007. He had retired from the Health Physics Division on May 31, 1978.

**Wilbur Bailey**, who became a Plant Maintenance Division janitor on December 12, 1960, and retired from Staff Services as a helper A on September 27, 1991, died at the age of 84 on January 15, 2007.

**Edward Sperry**, who joined the Lab Design Group on September 20, 1948, and retired as a design engineer I from the Physics Department on November 30, 1989, died at 79 on February 21, 2007.

**Mary Cox**, who joined the Medical Department as a junior technician on March 21, 1966, and retired as assistant dietitian on April 6, 1984, died on February 22, 2007, at the age of 90.

**John Reynis**, who held a Lab guest appointment 1988-91, joining the Physics Department as a senior technical specialist on January 1, 1992, died at 76 on April 10, 2007. He retired from the Relativistic Heavy Ion Collider Project on September 19, 1997.

BERA News, Events

All BERA trips listed below must have prepaid, non-refundable reservations made at the BERA Store, Berkner Hall, open weekdays, 9 a.m.-3 p.m., Ext. 3347. Buses depart from the Brookhaven Center.

- **Bear Mountain Oktoberfest** – Sat., 10/6. 2 buses available. \$10 ea. Dep. Lab, 8:30 a.m. – Dep. Bear Mtn., 4:30 p.m.
- **Renoir Landscapes 1865-1883**, at Philadelphia Museum of Art - Sat., 10/13. \$35 ea. Dep. Lab, 7:30 a.m. – Dep. Philadelphia, 4 p.m.
- **Legally Blonde on Broadway** – Sat., 11/3. \$76 ea., mezz. seats. Dep. Lab, 9 a.m. – Dep. NYC, 5 p.m.
- **Shopping Trip to Reading, PA** – Sat., 11/10. 2 buses available. \$10 ea. Dep. Lab, 8 a.m. – Dep. Reading, 5 p.m.
- **Cirque Du Soleil**, Wintuk, A Winter Tale, Madison Square Garden. Sat., 11/17. \$68 ea. 3 p.m. show. Dep. Lab, 9 a.m. – Dep. NYC, 5 p.m.

Southern Dance Party, 9/29  
Featuring the Lost Bayou Ramblers, Smokin’ Gun



Sponsored by the BNL Music Club, two outstanding bands — the Lost Bayou Ramblers and Smokin’ Gun, both southern music players, will perform at 8 p.m. on Saturday, September 29, at the Brookhaven Center. Even if you don’t dance, you’ll tap your feet! All are welcome to this fun event, which is open to the public. Tickets are \$15 each and may be bought at the BERA Store, weekdays, 9 a.m.-3 p.m. Visitors to the Lab of 16 and over must carry a photo ID.

Service Anniversaries

The following employees celebrated service anniversaries during June 2007.

- 30 Years -	
Edward Lessard.....	C-AD
William Guthrie .....	Plant Eng.
- 20 Years -	
Alessandro Ruggiero.....	C-AD
Patricia Williams .....	ESH&Q
Ann Emrick.....	Biology
Charles Edwards III .....	Plant Eng.
Randolph Seibel .....	CFS
Clinton Sampson, Jr. ....	CFS
Richard Wall.....	C-AD
Allen Licata .....	Emerg. Svces.
Craig Rochon .....	Plant Eng.
Michael Kijowski .....	Plant Eng.
Juan Gallardo .....	Physics
Richard Reciniello .....	Rad.I Contr.
- 10 Years -	
William Bambina.....	NSLS
John Moore.....	C-AD
Walter Lamar .....	C-AD
Thomas Gannon .....	Plant Eng.
Grace Tsai .....	Physics
Gladys Blas.....	C-AD

The following employees celebrated service anniversaries during July 2007.

- 50 Years -	
George Dioguardo .....	PPM
- 40 Years -	
Robert M Gonigle .....	ITD
George Murdock .....	C-AD
- 35 Years -	
John Dunn .....	Biology
Merle Pringle.....	Plant Eng.
Robert Bari .....	ES&T
- 30 Years -	
Betsy Sutherland .....	Biology
Jon Sandberg .....	C-AD
Robert Kiss .....	NSLS
Arlene Rementer.....	CMP&MS
- 25 Years -	
Daniel Sullivan .....	Magnet
Biays Bowerman .....	NNS
- 20 Years -	
Noreen Michelsen .....	Budget
Amalia Ruggiero .....	Life Sci.
Michael Schwarz .....	NSLS
Timothy Devine.....	Emerg. Svces
Steven Warhol .....	Physics
Carl Schultheiss.....	C-AD
- 10 Years -	
Vadim Ptitsyn.....	C-AD
Torre Wenaus.....	Physics

Arrivals & Departures

– Arrivals –	
Kevin O’Brien.....	Information Tech.
John Rubino .....	NSLS-II
Melvyn Mitchell.....	PPM
– Departures –	
Jim Xu .....	ES&T

Classified Ads (cont’d)

For Rent

ENGLEWOOD, FL - Boca Royal, 2 bdrm, 2 bath, unfurn. house in gated community, incl. all appl., pool and golf. \$1,200/mo. Belinda, 929-8400, eve. 744-9746.

FARMINGVILLE - looking for housemate to share a 2 bdrm. cottage, 15 min. from BNL, lg. bdrm., l/r, and kit., big yd., shed. \$750/mo. 278-9393.

MT. SINAI - 1 bdrm, kit/liv comb, full bath, lg. rms. sep. ent. main flr, w/own outside area, very sunny & bright, no smkg/pets, 1 person pref. \$1,000/mo. Stacy, 331-2002.

PORT JEFFERSON - charming 2 bdrm. furn. house, 2 bath, l/r, kit., den, screened proch, w/d, util. incl., no smkg/pets. \$1,900/mo. Mary, 928-5185.

ROCKY POINT - 1 bdrm. apt., kit., l/r, bath, pvt. drway/ent., no smkg/pets, 1 mo. sec., util. not incl. \$850/mo. 821-3287.

ROCKY POINT - fully furn. 2 bdrm. home, 1 bath, lg. l/r w/fp, outside deck, 15 min to Lab, heat and elec. incl., ref. req. \$1,500/mo. 718-746-3987.

SHIRLEY - 1rm, m/wave kitnet, furn, full bath, sep ent, tv, elect, heat, cable, wireless int, all incl, 1 mo. sec, 5 min to stores/beach, 15 to Lab, no smkg/p \$600/mo. Ext. 8321.

SHIRLEY - 1 rm, stove kit., furn., full bath, sep ent, tv, elect, cable, heat, wireless int, all incl., 5 min to stores/beach, 15 to Lab, no smkg/pets, 1 mo/sec. \$650/mo. Ext. 8321.

For Sale

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

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

FARMINGVILLE - custom ranch, 2500 sf, 3 br, 2 bth, eik, l/r, d/r, den, wood flrs., 2.5 car gar., igs, igr, many upgrades, dead end st. \$499,900/neg. 516-906-3348.

MEDFORD - updated 3 bdrm. Condo in Blue Ridge Development, see [www.for-salebyowner.com/20793141](http://www.for-salebyowner.com/20793141). \$315/neg. Eileen, Ext. 3995 or 790-4629.

PORT JEFFERSON STATION - 2 bdrm., 1.5 bath, shed, 1 car gar., fin. bsmt., new roof and windows, cac, center hall colonial. \$369,000 331-0305.

SHIRLEY - 4-5 bdrm., 2.5 baths, fen. yd., 2 car gar., screen rm, lr, dr, full bsmt. \$305,000/neg. Joseph, 745-2495.

WADING RIVER - 4 br, 3 bath Colonial, fin. nsmt, lr/w/fp, 1/2 acre beautiful property, SWRSd, low taxes. \$529,000/neg. Beverly, 516-381-8016.

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

WEST PALM BEACH, FL - 1 bdrm., 1 bath condo, completely renovated, cabinets, etc. \$46,500 516-375-7330.

On-Site Services

ENTERPRISE RENT-A-CAR - Stop at on-site office, Bldg. 355, 50 B'haven Ave., to check w/end specials, daily rates. Or call Ext. 4888 or see [www.enterprise.com](http://www.enterprise.com).

ON-SITE SERVICE STATION - gas, all vehicle services: NYS inspections, new batteries, tires, timing belts, etc. Done while you are at work. Ext. 4034.

In Appreciation

Adopt-a-Platoon - On 9/6, we sent 4 boxes weighing 240 lbs to our troops in Iraq. They are so appreciative of the goodies and notes of encouragement we have sent. See [www.bnl.gov/bera/activities/va/Adopt\\_A\\_Platoon.asp](http://www.bnl.gov/bera/activities/va/Adopt_A_Platoon.asp). —Maria Beckman

CALENDAR

— WEEK OF 9/24 —

Monday, 9/24

**\*Stephen Dewey on Alcohol & Brain**  
Noon. Berkner Hall. Stephen Dewey, Medical Department will talk on Alcohol and the Brain. All welcome. See left.

IBEW Meeting

6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Road, in Centereach. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, as well as the president's report.

Wednesday, 9/26

\*Talk on Optimal Sleep

Noon. Berkner Hall, Room B. Brendan Duffy of the Sleep Disorders Center, St. Charles Hospital will talk on optimal sleep for apnea sufferers. See p. 2.

Electrical Supply Tech Demo

10 a.m.-3 p.m. Berkner Hall lobby. Mid-Island Electrical Supply presents “A Day of Technology,” with Ethernet Connected Devices. Mid-Island & Rockwell engineers will demo products from Rockwell Automation, Rosemount Controls, 80/20 Aluminum Products, more. Call John Scarfogliero, 631-864-4242, Ext. 1325.

\*427th Brookhaven Lecture

4 p.m. Berkner Hall. Gene-Jack Wang, Medical Department, will talk on similarities between obesity and addiction. The talk is free and open to the public. Visitors to the Lab of 16 and over must carry a photo ID. See p. 1.

Thursday, 9/27

Stanley Supply Equipment Demo

10:30 a.m.-5:30 p.m. Berkner Hall. Stanley Supply & Services represent ACL Staticide, Agilent, ASG, Chemtronics, Cooper Tools Group, Desco, Excelta, Fluke, IAC Benches, JBC Tools USA, Jensen Tools, Lindstrom, Luxo, Metcal/OKi, Metro, Micro Care, OC White, Pomona, Protektive Pak, QRP gloves, Techspray, Vision Engineering, Weller, 3M and more. Bring your equipment to be tested, cleaned, inspected. Giveaways, prize drawings. Contact: Dennis De Vico, 866-505-7190 or [ddevico@stanleyworks.com](mailto:ddevico@stanleyworks.com).

Friday, 9/28

\*Lunchtime Tour: RHIC Tunnel

Noon-1 p.m. Berkner Hall lobby. Employees, users, retirees: meet to be taken to see the RHIC tunnel. Return by 1 p.m. See notice, p. 2.

Saturday, 9/29

Concert: Two Southern Bands

8 p.m. B/haven Center. Music Club sponsored concert. See above, left.

Sunday, 9/30

\*BNL Walks for Cancer Research

8:30 a.m. Meet at Stony Brook Post Office. “Walk for Beauty.” See notice, p.2.

— WEEK OF 10/1 —

Friday, 10/5

Talk on School Success

Noon. Berkner Hall, Room B. Joseph Connolly, former Committee for Special Education & Preschool Special Education at Miller Place School District, on “Great Expectations, Strategies for School Success,” including accessing special services for your child, bullying, etc. Contact Linda DiPierro, Bldg. 490, OMC, or [dipierro@bnl.gov](mailto:dipierro@bnl.gov).

BSA Lecture: Mars Rover Mission

4 p.m. Berkner Hall. Steven Squyres, a scientist from the Mars Exploration Rover Mission will give a BSA Distinguished Lecture on science results from the mission. All are welcome to this free talk.

## 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 benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible 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. Access current job openings on the World Wide Web at [www.bnl.gov/HR/jobs/](http://www.bnl.gov/HR/jobs/).

#### LABORATORY RECRUITMENT - Opportunities for Laboratory Employees

**SR. ADMINISTRATIVE SERVICES ASSISTANT (A-3)** - Requires formal secretarial training or equivalent, plus five years' experience in a secretarial or office administrative role. Must have demonstrated proficiency in Microsoft Office products including Word, Excel, and Outlook; familiarity with MS Access desired. Must have strong communication, organizational, and problem-solving skills, ability to handle multiple projects, prioritize workload, and handle non-routine office matters. Must have the ability to work independently, and maintain confidential administrative records and reports. Complete knowledge of the PeopleSoft Travel System, domestic and foreign, is important, as is knowledge of the BNL Web Requisition System. The ideal candidate will be detail oriented, with excellent writing and editing skills. Experience in arranging conferences and meetings, travel, appointments, services, and information gathering is preferred. Will be assigned to Project Support Division at the NSLS-II. Send resume to [nsls2jobs@bnl.gov](mailto:nsls2jobs@bnl.gov) referring to Position # DL 4756.

#### OPEN RECRUITMENT - Opportunities for Lab employees and outside candidates.

**SCIENTIFIC STAFF POSITION (ASSISTANT/ASSOCIATE LEVEL - 2 Positions)** - Requires a Ph.D. in materials science, physics, or chemistry. Significant experience in using transmission electron microscopy to answer important scientific questions is required, as well as demonstrated ability in conducting creative, independent research and in carrying out several projects simultaneously. A strong commitment to collaborative research involving external users of the Center and excellent communication and interpersonal skills is also desired. The successful candidates will become members of the CFN's Electron Microscopy team, which soon will complete installation of three top-of-the-line instruments: a 200keV TEM (JEOL 2100F) ideally suited for high-resolution analytical microscopy; an aberration-corrected dedicated STEM (Hitachi HD2700) capable of simultaneous acquisition of atomic imaging and energy-loss spectroscopy; and an environmental TEM (FEI Titan 80-300) with aberration corrector for high-resolution imaging and gas-reaction analysis. The primary responsibility of each candidate will be to conduct self-initiated and user-directed research, in comparable proportion, in one of the aberration-corrected microscopes. Additional responsibilities include working with members of the CFN team and other electron-microscopy groups across BNL to address general, high-resolution TEM needs of both BNL scientists and other users of the CFN. The level of the position will be based on the background and experience of the selected candidate. Under the direction of Y. Zhu, Center for Functional Nanomaterials. Send CV to [zhu@bnl.gov](mailto:zhu@bnl.gov) referring to Position No. KH 4016.

**POSTDOCTORAL RESEARCH ASSOCIATE** - Requires a Ph.D. in chemistry or a related field. Experience in the following areas is desirable: preparation and characterization of transition metal complexes and organometallic compounds, manipulation of air-sensitive complexes, excited-state photophysics and photochemistry, electrochemistry, mechanistic and kinetic studies in solution, time-resolved spectroscopy, and techniques for characterization (UV-vis, FTIR, NMR, GC, ESMS, stopped-flow, X-ray diffraction, XANES/EXAFS). A strong background in physical inorganic chemistry is also a plus. Under the direction of E. Fujita, Chemistry Department. Send CV to [felicia@bnl.gov](mailto:felicia@bnl.gov) referring to Position No. FH 4585.

**POSTDOCTORAL RESEARCH ASSOCIATE** - Requires a Ph.D. in theoretical elementary particle physics. The High Energy Theory Group has this position available beginning October 1, 2008. The Group has active programs in electroweak physics, collider physics, neutrino-physics, B-physics, per-

turbative QCD, spin physics, lattice QCD and physics beyond the Standard Model. To apply, send, before January 1, 2008, a CV with a list of publications, and three letters of recommendation to Amber Aponte, High Energy Theory Group, Physics Department, Bldg. 510A, Brookhaven National Laboratory, Upton, NY 11973-5000, referring to Position No. FH 4777.

**POSTDOCTORAL RESEARCH ASSOCIATE** - Requires a Ph.D. in structural biology and crystallography. Experience in protein crystallography is required and the prospective candidate should be able to work independently. Research program involves structure determination of macromolecules in high throughput manner. The Biology Department has excellent facilities for molecular and structural biology. State-of-art x-ray diffraction data collection facilities are available at the National Synchrotron Light Source. Under the direction of S. Swaminathan, Biology Department. Send CV to [felicia@bnl.gov](mailto:felicia@bnl.gov) referring to Position No. FH 3905.

**PROJECT ENGINEER I (P-9)** - Requires an advanced degree or equivalent capabilities in electrical engineering or physics and 10 years' experience in the design and analysis of high power RF systems. The candidate must demonstrate expertise with system analysis tools such as Pspice, MatLAB or equivalent. Expertise with test and measurement equipment, in particular network and spectrum analyzers, is required. Experience with klystron amplifiers and high voltage supplies is highly desirable. Excellent communication skills and the ability to develop detailed technical design and procedures are required. The NSLS-II RF group is responsible for the development of RF systems for a 3 GHz s-band linac, 500 MHz normal conduction cavity for booster synchrotron and superconducting cavity systems for the storage ring. Responsibilities include analysis, design and commissioning of a broad range of RF systems for the NSLS-II complex including S-band linac, 500MHz normal super-conducting cavities powered from 80 - 300kW CW inductive-output-tube (IOT) and klystron amplifiers. The selected candidate will be required to work closely with the electrical and mechanical engineering groups in the integration of the RF systems into the accelerator complex. National Synchrotron Light Source-II. Send resume to [NSLS2Jobs@bnl.gov](mailto:NSLS2Jobs@bnl.gov) referring to Position No. TB 4305.

**SR. PROJECT CONTROLS SPECIALIST (A-8, reposting, ERAP eligible)** - Requires a bachelor's degree or equivalent in a related discipline plus 10 years of professional cost/scheduling experience. Equivalent knowledge may be obtained through a combination of education and/or experience. Working knowledge of cost estimating, budgeting and control is required, as well as knowledge of Earned Value Management System processes and requirements. Must be proficient in Primavera (5.0) software; scheduling theory, techniques and methodologies; project management principles; and Microsoft Office Suite and Project. Solid analytical and reasoning skills and proven ability to develop solutions to complex problems is required. Must possess strong interpersonal, communication, and time management skills. Must be a self-starter, a team player and able to perform independently. Experience in a DOE project environment and Cobra cost processing software is preferred. Will report to the NSLS-II Project Controls Manager and will implement cost and schedule project

planning and control functions for a large engineering project either in the Experimental Facilities Division or the Accelerator Systems Division from the earliest stages of project planning through execution and closeout. To view complete description, visit [www.bnl.gov/nsls2/jobs.asp](http://www.bnl.gov/nsls2/jobs.asp). National Synchrotron Light Source II. Send resume to [nsls2jobs@bnl.gov](mailto:nsls2jobs@bnl.gov) referring to Position # DL 3937.

**BIOLOGY ASSOCIATE II (P-5, term appointment)** - Requires a bachelor's degree in a physical science and five years' relevant experience. An advanced degree is desirable. Practical experience with design of vectors and bacterial cloning of proteins with various programmed genetic tags desirable. Practical knowledge of purification and characterization of expressed proteins necessary. Proteins will be generated for use with site-specific gold nanoparticle labeling to be characterized biochemically and for electron microscope structural studies. Biology Department. Send resume to [morales@bnl.gov](mailto:morales@bnl.gov) referring to Position No. RM 3906.

**MANAGER, PROCUREMENT & PROPERTY MANAGEMENT DIVISION (M3)** - Responsible for planning, leading, and directing BSA personnel involved in the timely and economical requisition of all products and services required by BNL. Acts as the Functional Policy Contracts Manager for procurement, responsible for establishing and implementing BNL policy and assuring compliance with Federal Acquisition Regulations (FARs), Department of Energy Acquisition Regulations (DEARS), Federal Property Management Regulations (FPMRs), and other DOE requirements. Manages the property management system that includes tracking all accountable property. Serves as the focal point with DOE-BHSD and HQ for procurement and property management activities. Through regular partnership and interface meetings with DOE, interprets DOE policy, clarifies DOE expectations, and assures BSA compliance with DOE'S expectations and requirements. Responsible for BSA performance and evaluations as they relate to procurement and property management. Develops and implements long-range plans and strategy for execution of procurement and property management functions. Plans and carries out training and developmental activities for subordinates related to both current and future positions. Handles various personnel and organizational matters relating to employees in these functional areas. Includes interface and interaction with internal and external customers as needed. Conduct operational assessments and performance evaluations of direct reports and their respective areas of responsibility. Requires a BA in business administration or in a related field (MBA strongly preferred), and extensive relevant management experience. Must have a highly successful, demonstrated management track record in strategic and tactical planning, execution, and working within an agency-approved procurement organization. Management experience in a large technical/scientific organization and particularly experience within the DOE complex is highly desirable. This position has line management responsibility for the Laboratory's procurement and property management systems, including asset management, traffic and inventory. A broad background in procurement, knowledge of federal property regulations and a safety focus are required. The successful candidate must possess exceptional com-

munications and interpersonal relationship management skills and operate with a high degree of customer orientation. Experience with and understanding of business ERP systems is very desirable. An exceptionally high degree of personal integrity and accountability are fundamental requirements. Position NS4623.

### Motor Vehicles & Supplies

**05 HARLEY D. SPORTSTER 883 CUSTOM** - wht/chrme, excel. cond., wdshield, sdle bgs, hwy. lights, eng. guards/bars, fwd. ft. ctrls. 3100 mi. \$5,700. Ext. 3505 or 929-6467.

**05 MAZDA RX-8** - water white pearl, black int., a/t, sports tuned suspend, 18" wheels w/lg brakes, perfect. 7500 mi. \$22,500. Ext. 5665.

**04 SUZUKI SAVAGE** - almost new! great starter bike, 652cc, four-stroke, single cyl., air cooled eng. 50 mi. \$3,300/neg. Melanie, Ext. 5810.

**03 JAGUAR X-TYPE** - maroon/ivory int., orig. warr., choice of taking over lease of \$408/mo. 27K mi. \$19,500. 666-5730.

**02 FORD EXPLORER XLT** - 6 cyl. 4x4, a/t, a/c, run. brds., grill guard, roof rk., tow pkg., all pwr., cd radio, excel. cond. 77K mi. \$85,000. 821-7266.

**02 HONDA ACCORD** - EXL Coupe Silver 6 cyl., fully loaded, excellent condition . 48K mi. \$13,000/neg. Maryann, Ext. 4705 or 929-4978.

**02 FORD EXPLORER XLT** - 6 cyl. 4x4, a/t, a/c, run. brds., grille guard, roof rk., tow pkg., all pwr., excel. cond. 77K mi. \$8,500/neg. Kathy, Ext. 3832 or 821-7266.

**01 HYUNDAI ELANTRA** - extended bumper to bumper warr., 4 cyl. 30 mpg, white tan cloth int., gd. cond. 31K mi. \$6,000/neg. Douglas, 682-9562.

**99 LAND ROVER DISCOVERY II** - loaded, winter pkg, ACE, sound, jump seats, 18" wheels, dual s/roof, pics. avail. 113K mi. \$7,500/neg. Peter, Ext. 4028 or 486-8199.

**97 HONDA ACCORD** - LX model, gd. cond., orig. owner, p/w, p/l, a/c, cruise, etc. 120K mi. \$3,750/neg. Richard, 744-6794.

**97 DODGE 1500 PICKUP** - red, club cab short bed, 4wd, V8 5.9L, a/t, CD, bed lnr, towing pkg, a/c, excel. cond. 122K mi. \$5,500. 727-0911.

**95 SUBARU IMPREZA** - 4 dr. hatchback 5 spd., awd., abs., many new parts, clean, runs great, new tires. 176K mi. \$1,395/neg. Robert, Ext. 4867 or 278-2192.

**94 INFINITI G20** - 5 spd., pwr. sunroof/windows/locks, gd. cond. 108K mi. \$2,200. 258-7814.

### Furnishings & Appliances

**BUNK BED ABOVE FUTON** - Twin bed w/ new mattress above futon, great for kids rm. to relax & sleep, ask \$100/obo. Lynda or Michael, 286-1018.

**BUREAU** - 9 drws, wood, 19x74, \$25; end table, 3 drws, wood, 19x34, \$20, both gd. cond., must pkup. Ext. 7647.

**CORNER TV CABINET** - like new, cherry fin., will deliver, fits 32" tv, \$250. Howard, Ext. 3198.

**DEHUMIDIFIERS** - 2, \$65 and \$50, both in excel. cond. Ext. 3783 or 487-1479.

**FREEZER** - frigidaire 14 cu ft., like new, ask \$150. Katherine, Ext. 2269.

**VANITY & MEDICINE CABINET** - solid cherry, new, 24"l x 21.5"w x 34"h & 24"l x 7"w x 31"h, orig. \$230.23 & \$144.50. 878-1037.

### Audio, Video & Computers

**A-V AMP/RECIEVER** - Pioneer AM/FM amplifier w/video switching, excel cond. \$450 new, sell for \$250. Ext. 4689.

**DVDS** - widescreen eds of: Madagascar, Happy Feet, Finding Neverland. \$10 ea. lheady@bnl.gov. Lindsey, Ext. 2728.

**JENSEN SPEAKERS** - 2-ends 12", 6", 3" spkrs in ea. 30"x13"x8" \$75pr, 2-8" surround spkrs in wood encl. 12"x12", \$40pr. Ext. 4689.

**STREET ATLAS USA** - DeLorme XMap software for both PC and handheld devices, on 2 CD-ROMS, \$10. Ext. 3621.

**SUBWOOFERS** - Atlantic Technology #pbm70, self pwr'd, 125 watt 10" woofers, sell pr only \$250/obo. Edward, Ext. 7160.

**X-BOX** - orig., was dedicated to dance game, not being used, ask \$175 for system, wires, controllers, & more. William, Ext. 7139.

### Sports, Hobbies & Pets

**AFRICAN BURUNDI FRONTOSAS FISH** - healthy fish, 2 mo. old, 3 for \$15. Joey, 926-2613.

**TICKET** - Sat., Oct. 6th, 8 p.m., Tchakovsky violin concert, symphony #4, 2nd tier center, \$65. H. Kroeger, 929-4488.

### Miscellaneous

**1/2 DIAMOND SOLITAIRE 18K WG** - Princess, IGI card, Clr E-F, Clr SI 1-SI 2, Ext Rare Pol/Sym: G/G, Ex Cond in Box \$1,200 save \$500. Ext. 2854 or 646-942-7322.

**SPLEEN** - black bear, fresh/frozen harvested legally last wk. in Maine w/part of Liver, for Chinese Traditional use, b/o Ken, Ext. 4935.

### Yard & Garage Sales

**E. PATCHOGUE** - 5 family, Sat/Sun, 9/22-23, 9-3, prkg. lot, corner of Cty Rd. 101 & Robinson Ave. Don't miss out! Ext. 3477.

**MEDFORD** - 22 Petty La., Sat 9/22, rain 9/23, 9 a.m - 5 p.m., household items, tools jewelry collectible dolls, etc. Linda, Ext. 2733 or 395-6874.

### Free

**PRINTER** - HP Deskjet 660C color printer, Yamaha computer spkrs. 331-5642.

### Wanted

**BOWS** - old recurve and long. Bill, Ext. 2377 or 654-8685.

**CAR POOL RIDER** - Mattituck or vicinity to BNL. Steven, Ext. 4846.

**COMPUTER MONITOR** - Sixth grade student in need of a computer monitor for an HP computer. 387-5699.

**FIREARMS SHOTGUNS** - Ets, old or new, sell or trade. Joe, Ext. 3783 or 487-1479.

**FLUTE** - for student, preferably Gemeinhardt open hole, call or email babu@bnl.gov. Babu, Ext. 2568 or 729-6229.

**KNIVES** - Knife collector wants your knives, one or many. Fair \$\$\$ paid. 924-5249.

**LAPTOP** - old but working. Inexpensive. Ext. 2346.

**STRING BASS** - looking for decent quality 3/4 size concert bass for home practice, rent/buy, parker@bnl.gov. 246-9801.

**TICKETS** - 2 concert for Natalie MacMaster at Stellar Center for the Arts on Oct. 13, 2007. Ext. 2524.

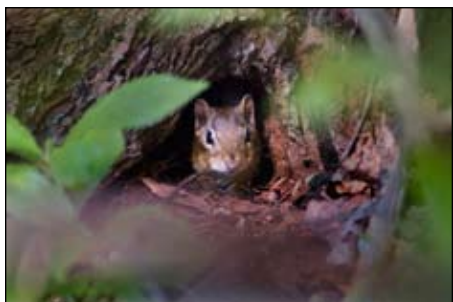
(Classified ads continued on page 3)

## QOL at BNL

Quality of life in summer can be watching chipmunks and riding through the woods beside the Peconic. As summer fades, here are some on-site photo souvenirs from Roger Stoutenburgh and Joseph Rubino to carry through into fall and winter into next spring.



Joseph Rubino D2060807



Roger Stoutenburgh D1830807



D1830807



D1830807