the Bulletin

BROOKHAVEN NATIONAL LABORATORY

Vol. 60 - No. 32 September 22, 2006

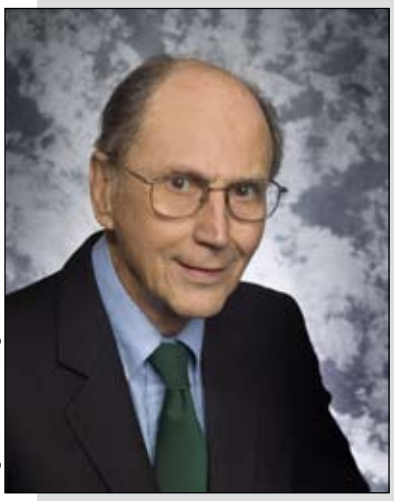
BNL Research Advances DOE Vision of Hydrogen-Based Economy

President Bush and the U.S. Department of Energy (DOE) have developed a long-term national vision for moving toward a hydrogen-based economy. This is seen as a solution to the need for alternatives to fossil fuels because of hydrogen's potential to provide virtually limitless clean, safe, secure, affordable, and reliable energy from domestic resources.

The focus on hydrogen as a future fuel source is compelling given dwindling supplies of oil and natural gas, as well as escalating costs, and the fact that burning fossil fuels releases large amounts of carbon dioxide, a "greenhouse" gas, into the atmosphere. In contrast, burning hydrogen gas, for example, in a fuel cell, produces no pollution. And hydrogen, a constituent of water, is widely abundant. However, finding simple, inexpensive ways to extract that abundant element, produce it in a pure gaseous form, and store it safely — crucial steps toward making the "hydrogen economy" a reality — is technologically challenging. Several researchers at BNL and other national labs are concentrated on meeting the challenge to make that vision of a hydrogen-based vision a reality. The following articles feature some of BNL's work on hydrogen, amplifying an article on this topic in the Bulletin of, June 9, 2006. — Karen McNulty Walsh

DOE Honors Brookhaven's Jim Reilly For Work in Hydrogen Storage, Development

Retired BNL chemist Jim Reilly has been honored with a 2006 DOE Hydrogen Program R&D Award in recognition of his lifetime contributions in hydrogen storage research and development. The award was presented at DOE's annual review of Brookhaven's hydrogen program in May.



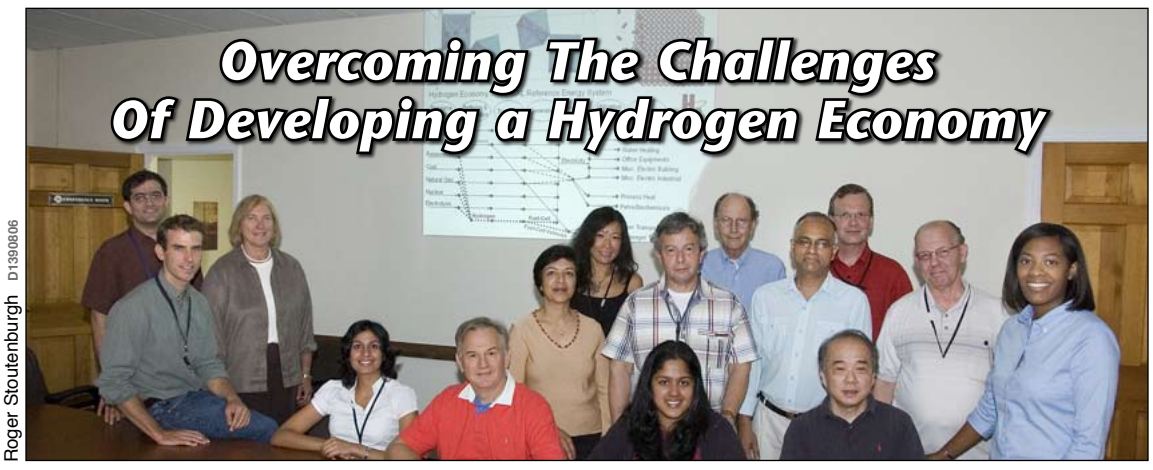
Roger Stoutenburgh D2020706

Reilly, who received a B.S. in chemistry from Fordham University, joined the Lab in 1956. He served as leader of the Metal Hydride Group and deputy leader of the Chemical Sciences Division before his retirement in 1999. He continues to serve as a guest scientist for DOE.

Reilly's initial work at BNL involved the development of methods for reprocessing nuclear fuel and the permanent storage of radioactive waste. In later years, he was concerned with the properties and applications of metal hydrides, catalytic properties of metal hydrides, preparation and characterization of metal hydrides for battery applications, and preparation of nanocomposite materials via hydrogen-driven metallurgical reactions.

Said Reilly's colleague Jason Graetz of the Energy Sciences & Technology Department, "Jim spent 40 years investigating metal hydrides, and he has over 100 publications and 18 patents in the field. For the past several years, he has been instrumental in guiding Brookhaven's investigation of alanes, aluminum hydride materials that could be used to store hydrogen on board a fuel cell-powered vehicle."

Reilly is a member of the American Chemical Society, the American Association for the Advancement of Science, the American Physical Society, the Electrochemical Society and the Metals Society.



Roger Stoutenburgh D1390806

Several of the researchers participating in hydrogen fuel research at BNL are: (seated, from left) Jason Graetz, Energy Sciences & Technology Department (ES&T); Mojgan Anjom, Stony Brook University (SBU); James Wegrzyn, ES&T; Sheena Joseph, SBU; and John Lee, ES&T; and (standing, from left) Vatsal Bhatt and Ann Reisman, ES&T; Safiyh Taghavi, Biology Department; Wei-Min Zhou, ES&T; Bill Greenberg, Biology; Jim Reilly, ES&T; Devinder Mahajan, ES&T and SBU; Daniel (Niels) van der Lelie, Biology; John Johnson and Kenya Crosson, ES&T.

A preschooler today may not have to be concerned about the high cost of gas or the pollution caused by automobiles by the time he is driving. He may drive a vehicle powered by a hydrogen fuel cell with zero tailpipe emissions, which, if research funded by President Bush's $1.2 billion Hydrogen Fuel Initiative were to be successful, would be efficient and economical.

The target date for mass-production of hydrogen fuel-powered vehicles is 2020, but many obstacles have to be overcome beforehand. Brookhaven researchers in the Energy Sciences and Technology Department (ES&T), the Biology Department, and the Chemistry Department (see the Bulletin, June 9, 2006) are working on projects that may lead the U.S. in finding economical ways to produce hydrogen fuel and to store it efficiently and safely. In addition, BNL researchers are assessing the feasibility and impact of a hydrogen economy.

Hydrogen from Bacteria: Potential Large-Scale Production

Funded by BNL's Laboratory Directed Research & Development program, Devinder Mahajan, ES&T and Stony Brook University, is collaborating with Daniel (Niels) van der Lelie and Safiyh Taghavi of the Biology Department, and researchers from the National Renewable Energy Laboratory, in a study of a bacterium called *Thermatoga neapolitana*. While the Biology team focuses on the microbiological and biochemical aspects of the investigation (see story below), Mahajan and his group concentrate on the science involving potential applications in industry. The research team tested five bacteria and found that *Thermatoga neapolitana*, which is found in the Mediterranean Sea in a natural volcanic formation called a smoker chimney, can produce large amounts of hydrogen gas at high temperatures and at atmospheric to elevated pressures. It also produces hydrogen most efficiently in a moderately low-oxygen environment, making it most suitable for large-scale hydrogen production.

"Most hydrogen is now produced from fossil fuels, but the goals of the hydrogen economy are to decrease our dependence on these fuels and to replace them with carbon dioxide-neutral feedstocks," said Mahajan. "Producing hydrogen from bacteria, using a variety of renewable feedstocks, would bring us one big step closer to using hydrogen as fuel and to a cleaner environment."

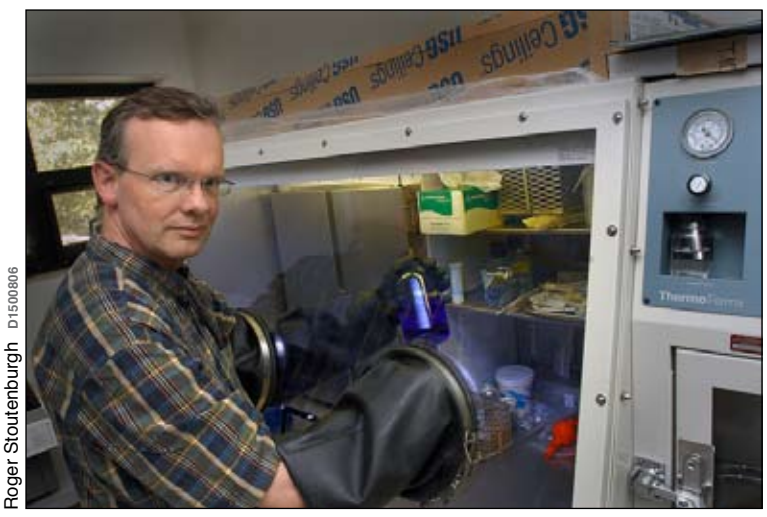
Hydrogen Storage

Funded by DOE's Office of Energy Efficiency & Renewable Energy (EERE) through the Metal Hydride Center of Excellence, ES&T's Jason Graetz, Jim Reilly, James Wegrzyn, Wei Min Zhu, and John Johnson comprise a team of BNL researchers who are studying the application of using aluminum hydride as a source of hydrogen fuel for fuel cell vehicles.

(continued on page 2)

Six BNL Scientists Awarded Tenure

Brookhaven Science Associates (BSA) granted tenure effective May 1 to six BNL scientists: Wolfram Fischer, Collider-Accelerator Department; Frithjof Karsch, Physics Department; Lisa Miller, National Synchrotron Light Source Department; Peter Steinberg, Chemistry Department; Daniel van der Lelie, Biology Department; and Vitaly Yakimenko, Physics. This week's edition features van der Lelie.



Roger Stoutenburgh D1500806

Daniel van der Lelie

Daniel (Niels) van de Lelie, a microbiologist in the Biology Department, was granted tenure for his significant contributions to research into the mechanisms by which bacteria and plants deal with toxic contaminants, especially heavy metals and organics, and for using this knowledge to develop creative new methods for their detection and bioremediation.

Since joining BNL, van der Lelie has published more than 60 peer-reviewed papers and a dozen book chapters. He holds five patents with three additional applications, serves on the editorial board of several journals, and has given many invited talks and seminars. Together with Oleg Gang of the Center for Functional Nanomaterials (CFN), he is also the Theme Leader for Biological and Soft Nanomaterials in the CFN.

Distinguished reviewers' assessments of van der Lelie based on his work include "a world-class environmental microbiologist . . ." "his published research is clever, innovative, and shows considerable promise as an avenue to the development of novel approaches to bioremediate contaminated environments . . ." "one of the world's leading scientists in the field of microbial mechanisms of heavy metal resistance and has also now considerable experience working with organic contaminants and their bioremediation."

Says Carl Anderson, Biology Chair, "Niels van der Lelie has clearly achieved independent accomplishments of a high order in the performance of original research. He continues to develop cutting-edge molecular tools for bioremediation and the analysis of microbial communities. External review by an international panel of distinguished scientists confirms his stature as a world leader in his field. He brings to all that he does an incredible energy and enthusiasm, indeed, it is hard not to become infected with that energy when one works

(continued on page 2)

ACS Talk: Using Microbes To Fuel the U.S. Hydrogen Economy

"If the U.S. is to have a future hydrogen-based economy, we'll need a way to generate abundant quantities of hydrogen safely and economically," said Daniel (Niels) van der Lelie, Biology Department. The prospect of using vats of microbes to brew up the hydrogen was presented in a talk at the 232nd national meeting of the American Chemical Society in San Francisco, California, September 12.

For this research, van der Lelie and his group are supported by BNL's Laboratory Directed Research & Development funds. They found that experimental setups using *Thermatoga neapolitana* bacteria given a simple glucose feedstock can generate copious amounts of hydrogen gas, free of carbon monoxide, at temperatures between 158 and 185 degrees Fahrenheit at atmospheric to elevated pressure.

The complex biochemistry of these reactions was described in the talk, as was the potential to scale up this system for continuous, farm-based, economical hydrogen production. One significant finding was that *Thermatoga neapolitana* produced hydrogen most efficiently in a moderately low-oxygen environment. Previously, hydrogen production by bacteria has only been reported under anaerobic, or oxygen-free, conditions.

(continued on page 3)

Calendar
of Laboratory Events

- *The BERA Store is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.*
- *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.*
- *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, Advanced classes. Various times. All are welcome. Learn English, make friends. See www.bnl.gov/esol/schedule. html for schedule. Jen Lynch, Ext. 4894.

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

Mondays: Pilates/Yoga
12:15 p.m., Rec. Hall. Ext. 5090.

Mondays & Thursdays: Kickboxing
$5 per class. Noon-1 p.m. in the gym. Registration is required. Christine Carter, Ext. 5090.

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

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

Tues. & Thurs: Upton Nursery School
8:30 a.m.-noon, Rec. Hall. Ext. 5090.

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

Tuesday & Thursday: Aqua Aerobics
5:15 p.m., Pool. Ext. 5090.

Tues., Thurs. & Fri: Ving Tsun Kung Fu
Noon-1 p.m., Brookhaven Center, North Room. Taught by Master William Moy. Tuition. Scott Bradley, Ext. 5745 or bradley@bnl.gov.

Tuesdays: Welcome Coffee
10 a.m-noon, apartment area gazebo. First Tuesday of every month is special for Lab newcomers and leaving guests. Lisa Yang, 979-3937.

Tuesdays: BNL Music Club
Noon, North Room, Brookhaven Center. Come hear live music. Joe Vignola, Ext. 3846.

Tuesdays: Jiu Jitsu Club
6:30-7:30 p.m. Gym. All levels, ages 6 and above. $10/class. Tom, Ext. 4556.

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

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

Wed. & Fri: On-Site Play Group
10 a.m.-noon, Recreation Bldg. An infant/toddler drop-in event. Parents meet while children play. Petra Adams, 821-9238.

Wednesdays: Market Day
11:30 a.m.-1:30 p.m., Berkner Hall parking lot. Fresh vegetables, plants, arts & crafts, and more. Joanne Rula, Ext. 8481.

Wednesdays: Ballroom Dance Class
Brookhaven Center, N. Ballroom. Instructor: Giny Rae. Arup Ghosh, Ext. 3974; Donna Grabowski, Ext. 2720; or Vinita Ghosh, Ext. 6226.

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.

Wednesdays: Pilates/Yoga
5:15 p.m., Rec Hall. Ext. 5090.

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

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

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

Twenty-Three BNL Women Attend FEW Workshop

Joseph Rubino D4870706

In July, 23 women from BNL attended the 37th annual Federally Employed Women (FEW) National Training program held in Atlanta, Georgia.

The primary mission of FEW is to encourage diversity and equity in the workplace and enhance career opportunities for women by providing opportunities for professional growth through leadership, education and networking.

Angela Melocoton of the Nuclear & Particle Physics Directorate, who works in the Relativistic Heavy Ion Collider and Alternating Gradient Synchrotron Users' Office, was this year's BNL coordinator. "Over the past few years I have heard BNL conference attendees talk about the great training sessions they participated in and the experiences they shared," said Melocoton. "I was amazed at the number and the variety of training sessions offered. I thoroughly enjoyed being this year's coordinator and learned something new in every session I attended."

Workshops covered subjects such as time management, computer skills, communication techniques, stress management, presentation skills, and how to balance work and personal life.

Says Melocoton, "Some of the titles were fun, such as, 'If I Could Juggle that Much I'd join a Circus,' and 'It Only Hurts When I Change,' but the content of the sessions was really informative and applicable to everyday work and personal practices."

Diversity Office Manager Shirley Kendall comments, "Professional development for all women is enhanced by attending workshops that improve personal and professional skills. Learning how to network with others is an important ingredient toward moving forward one's career and the FEW Conference offers all of these opportunities."

One of this year's participants, Terry Jones of Photography & Graphic Arts in the Media & Communications Office, adds, "I learned new customer service skills at the conference that I plan to use in the office. This conference was a wonderful way to be introduced to different ways of solving problems and to share ideas with other women. I'm happy I was able to participate and represent the Laboratory. It was a great experience."

Melocoton was impressed by this year's keynote speaker, Ric Giardina from The Spirit Employed Company. "I think everyone learned something from his talk," she says. "He reminded us how important it is to just be ourselves, communicate openly, and remember to say thank you. These are simple tasks, but too often forgotten in our busy world. As for me, I hope to live by his words."

Next year's FEW training program will be held in Washington, D.C. For more information on FEW, go to www.few.org. — Jane Koropsak

Daniel van der Lelie *(cont'd)*

with him. He has reached out to develop productive collaborations with colleagues within BNL and other scientific communities: we increasingly look to his strong leadership skills in developing more collaborations with initiatives in systems microbiology and energy biosciences that will serve the Department as well as DOE."

Van der Lelie earned his Ph.D. *cum laude* in mathematics and sciences from the University of Groningen, The Netherlands. He joined the Biology Department in July 2001. He is active in promoting the research of many Ph.D. candidates and in 2002 received a DOE Outstanding Mentor Award. — Liz Seubert

CIGNA at BNL, Mondays

On Mondays, 10 a.m.-1:30 p.m., CIGNA representative Janice Petgrave will be available, by appointment only, in Human Resources, Bldg. 185, to assist CIGNA participants with claims issues that they have been unable to resolve themselves. To schedule a 30-minute appointment, call Linda Rundlett, Ext. 5126. Bring all pertinent documentation to the meeting.

No Pool Fees, Oct. - Dec., New Saturday Hours

BNLers will not have to pay pool fees for quarterly passes or the $2 per day entry fee during the last quarter (October through December) of 2006. Saturday hours are now 10 a.m. - 2 p.m.

Overcoming the Challenges of Developing a Hydrogen Economy *(cont'd)*

Storing hydrogen economically and safely is another challenge that must be met before a hydrogen economy becomes a reality. A large quantity of accessible hydrogen must be stored safely in vehicles to enable drivers to have the same driving range as they do in gasoline-powered cars. Although hydrogen gas has high energy compared to its weight, its energy content on a volumetric scale is low, which poses a challenge for storage.

Aluminum hydride is an attractive storage material due to the large amount of hydrogen that can be contained in a relatively small, lightweight package. Aluminum hydride contains 10 percent hydrogen by weight and has a theoretical hydrogen density of 148 grams per liter, which is more than double the density of liquid hydrogen. Consequently, it will easily satisfy the DOE 2010 weight and volume targets for automotive applications.

While the BNL researchers evaluated aluminum hydride as a promising hydrogen storage compound on-board vehicles, further improvements are necessary to develop a better refueling process for this material. When used as a fuel, aluminum hydride releases hydrogen through a chemical reaction that occurs with mild heating. However, the aluminum residue remains and must be recycled to reform aluminum hydride. In this connection, Jason Graetz of ES&T noted, "We've synthesized aluminum hydride in the lab, determined its characteristics, and found that it would be a great hydrogen storage material for mobile applications. The current challenge is to develop improved methods to regenerate or recycle the hydride from the spent aluminum and hydrogen gas."

Hydrogen Economy Analysis

ES&T's Ann Reisman, Vatsal Bhatt, John Lee, Kenya Crosson, Paul Friley, and Thomas Alfstad are working on a three-year project, funded by DOE's Office of Energy Efficiency and Renewable Energy (EERE), to review the feasibility of a hydrogen economy, as well as its impact on such areas as the economy, the environment, and energy security. Collaborating with Energy and Environmental Analysis, Inc., (EEA) and Power and Energy Analytic Resources, Inc., both Washington, D.C.-based consulting firms, the team will analyze the options and tradeoffs involved in the establishment of a hydrogen production infrastructure.

The primary tool for this analysis is a computer-driven model, called MARKAL, short for MARKet ALlocation. Initially developed by BNL researchers in the late 1970s, this state-of-the-art MARKAL model uses about 15,000 equations and constraints for energy-system modeling and analysis. Additional computer models and databases are being used for many of the sector-specific and detailed supporting analytical tasks.

"We're looking at both short-term and long-term effects of a hydrogen economy, since we're covering the period from 2003 to 2050," said Reisman, head of ES&T's Energy, Environmental and Economic Analysis Group. "We're looking at current and future technologies and available energy resources as they relate to the entire hydrogen economy, including production, storage and distribution."

The transition toward hydrogen as a fuel for vehicles and other uses would have dramatic impacts on U.S. energy markets and infrastructure, with long-term energy, security and environmental implications. A variety of hydrogen production pathways are being analyzed as each region of the country would probably use a specific feedstock or technology best suited to that region.

To investigate such regional issues, the BNL team is expanding the U.S. MARKAL to a ten-region detailed energy system model, including a full representation of the hydrogen infrastructure that is presently being used for DOE's Energy Efficiency and Renewable Energy analysis.

The team is taking an integrated approach to the study, analyzing market competition among energy production and use technologies with respect to hydrogen fuel demand, technology cost, regional mix, and the impacts on feedstock prices. Their approach is flexible enough to consider the impact of, for instance, greenhouse gas regulations and energy security concerns related to growth of oil and natural gas imports.

— Diane Greenberg

Dr. Mow Shiah Lin Scholarship 2nd Annual Award Ceremony, Reception, 9/29

The BERA Asian Pacific American Association (APAA) invites all to attend the Award Ceremony for the 2nd annual Dr. Mow Shiah Lin Scholarship, on Friday, September 29, at 4 p.m., in the Hamilton Seminar Room of the Chemistry Department, Bldg. 555. The award of $1,000 will be presented to Minhua Shao, a graduate student who is studying electrochemistry and electrocatalysis in the Department of Materials Science & Engineering, Stony Brook University.

The APAA established the Dr. Mow Shiah Lin Scholarship to commemorate the life and career of Mow Lin, who was a distinguished scientist in BNL's Energy Sciences & Technology Department. In honor of Lin's research, achievements, and inventions, this scholarship is granted annually to an Asian immigrant with a student visa who is matriculating toward a graduate degree in environmental science, biology, or chemistry at an accredited institution of higher education, in recognition of the manner in which Lin began his career.

At the ceremony, Shao will present a brief introduction to his current research project. He will be introduced by his thesis advisor and BNL Electrochemistry Group leader, Radoslav Adzic.

Refreshments will follow the presentation. For more information, contact Susan Eng Wong, Ext. 7988.

ACS Talk: Using Microbes to Fuel the U.S. Hydrogen Economy *(cont'd)*

"Oxygen normally kills anaerobic microbes like *Thermatoga neapolitana*," van der Lelie said. That would be a problem for any real-world production facilities, as eliminating all oxygen from production lines could be very expensive. "Also, the absence of carbon monoxide is very important, as this gas poisons hydrogen fuel cells."

Van der Lelie's team in the Biology Department includes Safiyh Taghavi and Bill Greenberg. Working in collaboration with Biology are Devinder Majahan and his team in the Environmental Sciences & Technology Department (ES&T) (see also the story on Hydrogen Economy, page one). Also, in collaboration with Paul King, a scientist at the National Renewable Energy Laboratory, the team is now elucidating the mechanisms by which *Thermatoga neapolitana* can avoid oxygen toxicity during hydrogen production.

"Understanding the oxygen tolerance of *Thermatoga neapolitana* will facilitate its practical application to produce hydrogen from agricultural resources," van der Lelie said.

— Karen McNulty Walsh

Note: Due to last-minute circumstances, the talk was given by Mojgan Anjam, a Stony Brook University student who is on the project.

In Memoriam

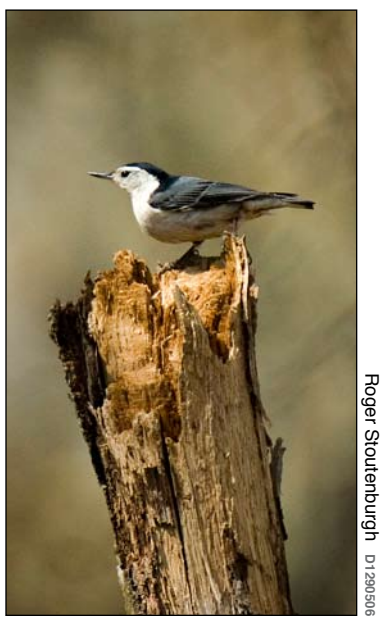
Francis Mottl, who joined the Lab on October 8, 1962, as an intermediate technician, and, as a technical specialist, retired from the Relativistic Heavy Ion Collider Project on June 30, 1993, died at the age of 75 on July 29, 2005.

Anna Sell, who joined the Alternating Gradient Synchrotron Department on April 12, 1965, as a clerk B, and retired from that department as a senior executive secretary on June 30, 1982, died on March 8, 2006. She was 80.

Kurt Hillman, who became a development engineer I in the Alternating Gradient Synchrotron Department on December 4, 1978, and retired from the Department of Nuclear Energy as a research engineer I on June 11, 1993, died at the age of 80 on June 24, 2006.

Employee Lunchtime Tour
BNL Birding, 9/22

All are invited to take the employee lunchtime tour on Friday, September 22, to go birding in the BNL woods. Ernie Lewis of the Environmental & Waste Management Services Division will lead the group and help identify any birds that are seen, such as this nuthatch (right) spotted by Lab photographer Roger Stoutenburgh. Wear suitable anti-tick shoes and clothes, and bring binoculars if you like. Meet the group at noon in the lobby of Berkner Hall for transportation to the walk area; you will be returned to Berkner by 1 p.m.



Roger Stoutenburgh D1290506

Great Adventure 'Fright Fest' at BERA Sales Office

BERA is selling tickets for "Fright Fest" at Six Flags Great Adventure, which is held weekends from September 29 through October 29. The BERA Sales Office also sells discounted movie tickets to all Lowe's Theatres, National Amusements (Island 16) and any Regal, Edwards, or United Artists Theatres. The Sales Office is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m.

BSA Noon Recital

Pianist Carlos Avila, 9/27

Carlos Avila will present a BSA Noon Recital in Berkner Hall on Wednesday, September 27, performing works by Rachmaninoff, Schubert, and Rzewski. Avila, 24, has won many competitions, including first prizes in the 28th International Corpus Christi Competition and the San Francisco Young Pianists Competition, and second Prize in the Sorantin International Competition.

Joshua Kosman of the *San Francisco Chronicle* says, "[Avila] possesses a nimble keyboard technique, eloquent legato, beautiful command of tone and mood." Avila has soloed and performed with many orchestras, including, just recently, filling in for an ailing Stuart Goodyear at 24-hours' notice to perform the Rachmaninoff Piano Concerto No. 1 with the California Symphony.

All are welcome to this free, public recital, sponsored by BSA, the company that manages BNL. Visitors to the Lab of 16 and older must carry a photo ID.

Arrivals & Departures

— Arrivals —

Paban Agrawala ..... Medical
Joseph Smith..... Plant Eng.
Scott Walter..... Internal Audit

— Departures —

Tobias Beetz ..... CFN
Joseph De Long ..... C-A
Lilach Ephraty..... Medical
Charles Whalen ..... C-A

OMC Talk, 9/27 Managing Depression

All are invited to join Jai Sabramani, one of the staff physicians at the Lab's Occupational Medicine Clinic, on Wednesday, September 27, at noon in Berkner Hall, Room B, where she will present "Understanding and Managing Depression," a talk outlining the signs and symptoms of depression, depression in special populations, the role of antidepressant medications in treatment, and knowing where and how to get help.

Check your mailbox for registration forms. For more information, contact Linda DiPierro, Ext. 2733 or dipierro@bnl.gov.

On-Site Service Station

The on-site service station, Upton Industries, Inc., provides not only gas, but also, all vehicle services: New York State inspections, new batteries, tires, timing belts, repairs, etc., while you are at work. Call Ext. 4034 for an appointment.

BERA Volleyball Open B League Champs

As a grand send-off to the season, The Easy Spikers celebrated that they had not only spiked, but bumped, set, and served their way to victory in 3 sets to defeat Shankadelic and take the Open League B championship. Easy Spikers are: players, from left) Jay Adams, Ron Webster, Ruimei Ma, John DeBoer, Gloria DeBoer, Terry Sullivan, and Dan Mullaly; (the young cheerleaders, from left) Eric Ma and Alan Wei.

Join In! Have Fun on BERA Trips

Saturday, 9/23 - Belmont: a day at the races. Belmont has a gorgeous park with access to the paddocks, saddling area, playground, and more. $40 per person (pp) includes a full buffet luncheon, including taxes, tips.

Sunday, 10/15 - New York Botanical Garden Chihuly Exhibit. 55 tickets, $22 pp, adult/child over 7 years old only. http://www.nybg.org/ . Leave BNL about 9 a.m., leave New York Botanic Garden about 4 p.m. Includes entry to Chiluly, all conservatories and exhibits, child's wonder garden, Nolan Greenhouses & self guided narrated Tram Tour.

Saturday, 10/28 - Fishing trip, $50 pp, with Captain Bob's Mattituck. Be at the dock by 7:45 a.m., returning at 3 p.m.

Sunday, 11/5 - See the "Bodies" Exhibit at South Street Seaport Exhibition Centre in New York City and have free time in the city. 45 tickets. Leave BNL 9 a.m., leave the city at 4 p.m. $23 pp. See also http://www.bodiestheexhibition.com/

Saturday, 11/18 - Atlantic City. Casino to be determined. Probably Tropicana, Bally, or Taj Mahal. Depart BNL 8 a.m., depart casino 6 p.m. $20pp. Up to 55 seats, one bus ONLY will be taken.

Saturday, 12/2 - *The Nutcracker* at NYC Ballet. 2 p.m. show. 26 tickets/passengers only, in a small bus. $80 pp includes bus and third ring seats. Leave BNL 10 a.m., leave NYC about 4 p.m.

Sunday 12/10 - Radio City Christmas Spectacular. 55 tickets, $75 pp, 3 p.m. show: section 600, rows F through K. Depart BNL 9:30 a.m., depart after the show at about 5 p.m.

CALENDAR

— THIS WEEKEND —

Today, Friday, 9/22

***Lunchtime Tour: Birds in the Woods**
Noon. Berkner Hall lobby. See notice, below, left. All Lab community welcome.

***DJ Dance Social Tonight**
7-11:30 p.m. Brookhaven Center. The BNL Social and Cultural Club invites all to a Dance Social and "Bachata" workshop, with DJ music. Rudy Alforque, will give two hours of lessons from 7:15 p.m. Admission of $15 includes cold food buffet, cookies, coffee, and dance instruction. Contact Rudy Alforque, Ext. 4733 or alforque@bnl.gov for more information. See page 4.

Saturday, 9/23

***BERA Trip to Belmont Races**
10:30 a.m. Leave BNL. $40 includes a buffet and luxury bus. Leave Belmont at 5:30 p.m. Tickets at the BERA Store, Berkner.

— WEEK OF 9/25 —

Monday, 9/25

IBEW Meeting
6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. 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.

Tuesday, 9/26

Verizon Wireless Demo
11 a.m.-2 p.m., Berkner Hall. Representatives from Verizon Wireless will present BNLers with discounts on Verizon phones and wireless services. Edwina Cressy, 516-459-2635.

Wednesday, 9/27

***BSA Noon Recital, Pianist Avila**
Noon. Berkner Hall. Sponsored byBSA, this free concert by Carlos Avila is open to the public. See notice, above, left.

***Talk on Managing Depression**
Noon. Berkner Hall, Room B. Jai Sabramani, Occupational Medicine Clinic, will present "Understanding and Managing Depression." All are welcome. See notice at left.

Friday, 9/29

***Dance Social: Live Music by Fame**
7 p.m.-midnight. Brookhaven Center. The BNL Social and Cultural Club invites all to enjoy the live music by "Fame", a band led by ballroom/Latin dance instructor Louis del Prete. Fame plays ballroom, Latin, and swingmusic. The band will play from 8:30 p.m. At 7 p.m., there will be one hour of line dance instruction, which is included in the $20 admission fee, which also includes a cold food buffet, cookies, and coffee. Contact Rudy Alforque, Ext. 4733 or alforque@bnl.gov for more information.

— WEEK OF 10/9 —

Thursday, 10/12

CAC Meeting
6:30 p.m., Berkner Hall, Room B. The Community Advisory Council (CAC) consists of business, civic, education, employee, environment and health organizations. Members meet monthly, set their own agenda, and work to reach consensus recommendations on issues of concern to them. The CAC meets on the second Thursday of each month. BNLers and members of the public are welcome to attend. Each meeting has a comment period during which community members may voice their opinions and concerns. Sherry Johnson, Ext. 5658.

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.

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/.

LABORATORY RECRUITMENT – Opportunities for Laboratory employees

TB3250. SR. TECHNICAL ASSOCIATE (T-7, Building Manager) - Requires a bachelor's degree or equivalent through considerable training and experience in a broad technical field. Demonstrated responsible technical leadership, and supervisory functions desirable with minimum of 10 years' relevant experience. Comprehensive knowledge, skills and experience in facility operations and maintenance are also desirable as is familiarity with Davis – Bacon Act requirements. Excellent communication (oral and written) and interpersonal skills are required to team up with a diverse workforce, which include NSLS staff, users, skill craft trades within the bargaining unit, and Plant Engineering (EP) supervisors, as well as various contractors and vendors to achieve compliance with BNL's infrastructure related to SBMS and work control program requirements Will be responsible for operations, maintenance and housekeeping of the building structures, common areas and utility systems of a multiple building research complex, and working in conjunction with the NSLS ESH Group to assure compliance with ESH policies and procedures in both common building areas and on various experimental halls of the facilities. Will support the NSLS staff and user community in work planning and be the interface between Laboratory services, staff, and users and serve as the Deputy Work Control Manager and in that role, authorize work to proceed on issued work permits. Will serve as the primary interface with Plant Engineering for facility related tasks, review project plans and designs that impact building systems, and ensure compliance with safety permits affecting building systems. Will provide NSLS specific training and orientations as necessary to staff, users, contractors, vendors and be responsible for maintaining the Facility Use Agreement, revising as necessary, and monitoring and maintaining the elements of the operational safety envelope. Will be responsible to coordinate utility outages between EP and building occupants, assist in space planning as well as office key allocations, and maintain the accuracy of the building key plans and associated cross – hatched areas. Will participate in self–assessments of the Building Manager Program and as a member of the NSLS ES&H Team performs facility, e.g. Tier 1 inspections. Reports directly to the NSLS Assistant to the Chair for Administration. National Synchrotron Light Source Department.

JH4273. ADMINISTRATIVE SECRETARY (A-2) – Requires formal secretarial training, or equivalent, plus 4 years' experience in a secretarial or office administration role. Demonstrated proficiency in MS Word and Outlook required; familiarity with Excel and Access desired. Must have strong communication, organizational and problem solving skills, the ability to work independently, handle multiple projects, prioritize workload, and handle non-routine office matters. Must have the ability to maintain confidential administrative records and reports. Knowledge of Laboratory practices, policies, and procedures is essential. Full knowledge of the PeopleSoft Travel System is required and knowledge of the BNL Web Requisition System is preferred. The ideal candidate will have writing and editing skills and will also have contacts within the Lab and with outside organizations for arranging conferences and meetings, travel, appointments, services, and information gathering. Responsibilities include both routine and non-routine administrative assignments that include, but are not limited to: preparing reports and correspondence; coordinating and scheduling appointments and meetings. National Synchrotron Light Source-II.

TB4363. MATERIAL HANDLER (LG-3) - Performs a variety of laboring and manual tasks in stores operations such as moving, loading, unloading, sorting and storing of materials. May operate motorized equipment pertinent to stores operations. Keeps stores facilities in neat condition. Procurement & Property Management Division.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates

MK4134. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in physics, chemistry or materials science with experience in soft-matter physics. Expertise in fundamental aspects of wetting, polymers, Grazing Incidence Small Angle or Surface S-ray scattering is highly desirable. The Soft-Matter Group (http://www.solids.bnl.gov/~scmg) is involved with confinement and template directed assembly in chemical and biomolecular materials. They use synchrotron x-ray scattering, non-contact atomic force spectroscopy, and optical microscopy techniques to study fundamental properties of complex fluids, simple liquids, macromolecular assemblies, polymers, and biomolecular materials under confinement and on templates. There are several challenges including: (1) to understand liquids under nano-confinement, (2) how templates and confinement can be used to direct the assembly, (3) to understand the fundamental interactions which give rise to similar self-assembly behavior for a wide variety of systems, and (4) how the resulting order correlates with the functional properties. Under the direction of B. Ocko, Condensed Matter Physics & Materials Science Department.

MK3758. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in chemical physics or physical chemistry, and experimental experience in some combination of the following: laser spectroscopy, chemical dynamics, molecular beam vacuum technique, computerized data acquisition and analysis. The gas phase molecular dynamics group performs basic research in unimolecular and bimolecular reactions and energy transfer processes with applications to problems in combustion chemistry. Current topics of interest include product correlations as a probe of energy flow in dissociating molecules, state-resolved studies of collision-induced electronic transitions and reactions occurring on more than one electronic state. This is an opening for an experimental scientist, but collaboration with theorists in the group is encouraged. Under the direction of G. Hall, Chemistry Department.

MK3841. POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS (4 positions) – Requires a Ph.D. in structural biology, molecular biology and biochemistry, crystallography or bioinformatics. Projects include Structural Genomics, structures of channel forming proteins, protein complexes, protein-small molecule complexes, and database management. Experience in macromolecular crystallography is required for Structural Genomics project. The Biology has excellent facilities for molecular and structural biology and state-of-the-art x-ray diffraction data collection facilities are available at the National Synchrotron Light Source. Under the direction of S. Swaminathan, Biology Department.

MK4173. POSTDOCTORAL RESEARCH ASSOCIATE (One or more positions) – Requires a Ph.D. in applied mathematics, materials science, physics or a related discipline, research ability in the numerical methods for the solution of complex PDEs, and in the design and operation of parallel simulation codes for large supercomputers. Also required is experience in the design and operation of parallel simulation codes for large supercomputers. Should have special interest in the development of numerical algorithms for complex partial differential equations with applications to electromagnetics, fluid dynamics and nanoscience. Experience with parallel computing and modern supercomputer architectures is desirable. Will work in multi-institutional collaborations. The Computational Science Center engages in advanced scientific computing in biology, MHD/fluid dynamics, nanoscience, accelerator science, and the use of massively parallel machines. Under the direction of J. Davenport, Computational Science Center.

JH3953. PHYSICIST - Inelastic X-ray Scattering Group Leader (S-3) - Requires a Ph.D. in physics and at least 5 years of relevant postdoctoral experience. Experience in inelastic x-ray scattering is required and prior experience in managing the construction and operation of a beamline is preferred. Candidates must have excellent written and oral communications skills and be able to interact effectively with a diverse group of scientists, technical staff, and users. The selected candidate will be responsible for working with the user community to define the scientific mission and technical requirements for a state-of-the-art inelastic x-ray scattering beamline and for its design, construction, and commissioning. The selected candidate will also be responsible for developing the user community for the beamline and for developing and managing a scientific research program based on the beamline. National Synchrotron Light Source-II.

RM3249. ASSISTANT BUDGET SPECIALIST (A-4) - Requires a bachelor's degree in accounting or equivalent with two or more years of related experience. Must be proficient in Word, Excel, Outlook and other MS Office products. Excellent oral and written communications skills are essential. Experience with PeopleSoft financial applications highly desirable. Responsibilities include budget development, analysis of cost and commitment and preparation of proposals and financial status reports for management. Interaction with other BNL offices and other administrative tasks required. Will report directly to the Business Operations Manager of the NSLS Budget/Administration group. National Synchrotron Light Source Department.

RM3620. ADMINISTRATIVE SECRETARY (A-2) - Requires formal secretarial or office administrative training or equivalent and a minimum of four (4) years' relevant experience. Must be proficient in the use of Microsoft Office products, web-based tools, and Adobe Acrobat. Excellent verbal and written skills are essential. Must have the ability to work under pressure, balance priorities and perform multiple tasks. Knowledge of BNL's office procedures, processes, and tools, including PeopleSoft and the foreign and domestic travel systems desired. Duties will include preparing correspondence and cables, maintaining files, preparing foreign and domestic travel authorizations and expense reports for a group of eight, interfacing with representatives of several U.S. government agencies and contractor organizations, and coordinating meetings. Must exercise initiative, good judgment and function as a member of a team. Candidate must be a U.S. citizen and be able to obtain and maintain a DOE "Q" clearance. Nonproliferation & National Security Department.

Motor Vehicles & Supplies

06 SUZUKI GSXR 600 - wh./silver, also 2nd GSXR 600, red/black, not perf. cond. Ask $6,900. 770 mi. $7,250/neg. Ext. 7277.

05 MAZDA RX8 - 6spd., leather, a/c, c/c, abs, all pwr., am/fm/cd w/warr., excel. 30K mi. $24,800. Michael, Ext. 7410 or 723-0211.

05 TERRY TRAILER - 30ft. Terry Trailer, loaded, mint condition. $18,000. 872-8672.

04 CHEVY S10 PICKUP - Black, Crew Cab. 4wd, all pwr, 6 cd changer, tow pkg, h/way miles. 60K mi. $13,000/neg. 821-1271.

02 VW PASSAT WAGON - 4 cyl., ps/pw a/c, abs, keyless ent., leather s/roof, 6 CD player, htd seats, 32K mi. $12,000. 744-5448.

02 TOYOTA HIGHLANDER - 6cyl, awd, 100k ext. warr., all pwr., tow pkg,. m/roof, frt./side a/bags. 72K mi. $16,250/neg. Ext. 7277.

00 TOYOTA SOLARA SE - original owner, excel. cond., doesn't need anything. 89K mi. $8,995. 680-5645.

00 DODGE DURANGO - 8 cyl. 3rd row, seats 7, loaded, champagne color, leather int., all pwr., extras. 90K mi. 331-3765.

98 JEEP WRANGLER SPORT - soft top, 116K, grt shape, CD, new batt., tires, rad., w/ shield. 116K mi. $8,000/neg. 206-356-6612.

98 CHEVY Z71 - mint, must sell, 8cyl., 4x4, 6ft. bed w/liner & cover, tow pkg. 69K mi. $8,900/neg. Laura, Ext. 4660 or 807-0457.

97 TOYOTA COROLLA CE - 4D Sedan, a/t, CD, AM/FM, AC, excel. cond. 4 new tires and battery,110K mi. $3,300. 576-7127.

96 JEEP GRD CHEROKEE - 4x4, 6 cyl, F pkg, tow pkg, garaged, new Mich. tires, 122 mi. $4,400/neg. Jim, Ext. 7859 or 924-7374.

96 MERCURY SABLE LX ST-WGN - all pwr, new tr. under warr, new brake syst, 118K mi. $2,700/neg. Steve, Ext. 8137.

96 OLDSMOBILE AURORA - power-all, clim. contr., leather. 86K mi. $2,700/neg. Steve, Ext. 8137.

95 NISSAN ALTIMA - good running condition, good body, needs airbags. You pick up. 110K mi. $250/neg. Ext. 4122.

93 HONDA CIVIC - LX, 4dr, manual 5spd, a/c, p/w, p/l, etc. 154K mi. $900/neg. Yury, Ext. 5089 or 902-3196.

93 TOYOTA TERCEL - blue, 4 door, a/t, a/c, runs well, new batt. & sp/plugs. 110 mi. $2,000/neg. Das, Ext. 3114 or Ext. 1064.

90 HONDA ACCORD - charcoal 2dr., FWD, 5spd manual, a/c, cd, p/w, p/s, c/c, some rust. 150K mi. $900/neg., Ext. 3225.

88 PONTIAC FIREBIRD - a/t, 8cycl, t-tops, mny new parts, grt stereo, needs new batt. 104K mi. $1,000/neg. Ext. 3381 or 744-4061.

84 CHEVROLET CORVETTE - excellent condition. $7,000. Richard, 929-0961.

Boats & Marine Supplies

16' SAILSTAR EXPLORER - Day sailer w/ outbrd, sails, anchor, etc. Now in Carman's River. $500/neg. Ext. 4373 or 286-1353.

16' STUR-DEE DORY - +30 HP Johnson OB (<40 hrs). Info/photos: http://tinyurl.com/lbhtp. $4,900. Todd, 764-0359.

18' MARIAH BARCHETTA - bowrider, i.o. high-output V6, low hours, canvas, trailer w/electric winch, excel. $8,000. 929-0961.

18' SEA RAY & TRAILER - 1998 Bow Rider, 130 Merc w/turn key, low hours, 2000 trailer incl., all mint. $8,000. 286-7291.

Furnishings & Appliances

BUNK BED - Stanley wood furniture. Head boards,foot boards, railings, ladder and 2 drawers. Pic avail. 873-8959.

CRIB & CHANGING TABLE - Simmons mtching set, white wood, excel. cond., pics. avail. Org. $300+, ask. $150/set. 331-3765.

DESKS - 2 oak wood finished desks w/ matching file cabnets, never used. Desks $250 ea. File cabnet $125ea. 757-3952.

DINING RM SET - Heywood Wakefield, solid maple, nutmeg finish, 3 leaves, 4 chairs, excel. cond. $350. Lillian, Ext. 8772.

ENTERTAINMENT CENTER - excel. cond., black, side storage, shelves w/glass doors, fits up to 32" t.v., pic. avail. 331-3765.

ENTERTAINMENT CENTER/CHINA CAB - 3-pc., Formica/glass, excel. cond. $300. Ext. 3381 or 744-4061.

FURNITURE - Denim loveseat, $100; Antique fldg table, $80; Ikea bkshelf, $25; chapman@bnl.gov for photos. Ext. 5245.

REFRIGERATOR - Whirlpool Gold, bisque, sd-by-sd, 22 cu', water & ice in door, 2 yrs remain warr. - $500. Ext. 5316 or 289-0034.

SOFA TABLE - oak finish, mint cond. $50. Lillian, Ext. 8772.

Audio, Video & Computers

DIGITAL CAMERA - Nikon Coolpix Model 5700, 5 mgapxls, mschwart@bnl.gov for info. Ask $300. Melanie, Ext. 5810 or 744-4868.

REMOTE STARTER/KEYLESS ENTRY - (DEI) Valet 562t system, new in box, tech-sheets avail. $110. Darryl, Ext. 5211.

TV - Panasonic 19 in., mint cond. $35. Ext. 8772.

XBOX 360 - brand new, unopened, console, see http://pages.zdnet.com/jappe1 for details, $400. Warren, Ext. 2080 or 751-5245.

Sports, Hobbies & Pets

EXERCISE BIKE - Dual-action fan bike, spd/time indicatr. $25. Ext. 5080 or 766-7701.

NACAR TICKET FOR DOVER - 1 ticket for 9/24/06 BERA trip. Bus ride included$110. Robert, Ext. 4798 or 235-3440.

NORDITRACK & TUNTURI BIKE - gently used, w/manuals, best offer. 744-8386.

PIANO - Baldwin Acrosonic. Good condition. $100. Bo, 929-0480.

POOL, PUMP, FILTER, ETC. - 12' x 18' x 54" oval, all working well, you dissemble and take. $100. Michael, Ext. 5890.

Tools, House & Garden

CHIPPER/SHREDDER - 5 h.p., MTD, chips up to 3" branch, excel. cond. $200. Rich, Ext. 3940 or 730-7769.

LAWN TRACTOR - 11.5 HP B&S, 36" Deck. $200 or best offer. Ext. 5993 or 929-5945.

LEAF/LAWN SWEEPER - Craftsman, 26"w, $45; rototiller, 5 hp, Bolens, frt tine mdl, $200. Both excel. Rich, Ext. 3940 or 730-7769.

Miscellaneous

GIRL'S BICYCLE - 12 inches, purple color, $15. Das, Ext. 3114 or Ext. 1064.

TICKETS FOR CHRISTMAS SHOW - 8 tickets for Holiday Wonders at Beacon Theatre, 12/21, 8 p.m., $25/ea., Ext. 4033.

UTILITY TRAILER - landscaper type, ramped, 4x8 feet, 12" wheels, good for ATV or motorcycle. $275. 929-6421.

Yard & Garage Sales

ROCKY POINT - 9/16 30 King Rd. Proceeds support Feral Cat Rescue. Donate items 4 sale - Lisa, LHo4eva@yahoo.com. Melanie, Ext. 5810.

Free

BABY'S CRIB - free, mattress, gd. cond., please pick up. Arun, 924-7185.

1980 HONDA CRX 500 MOTORCYCLE - needs work, you pick up. Michael, Ext. 5890.

KITTENS TO GOOD HOME - 5 wks, black female and white/black male, very cute, longhair parent, 398-8024.

TRACTOR - Silver King, over 60 yrs old, (a pile of rusted case iron). Ext. 3981.

Wanted

FENCE MATERIAL - looking for some 6-foot-high chain-link fence material of any length, new or used. Jorge, Ext. 7625.

MANDARIN INSTRUCTOR - Chinese (Mandarin) teacher for adult beginner. Prefer person trained to teach Chinese. 281-3414.

OVEN - electric, standard kitchen size, range top does not have to work, to be used for powder-coating. Frank, Ext. 4620.

RECORDS - 45s and LPs. I'll give them a good home. Ext. 7661.

SCIENTIFIC GRAPHIC CALCULATOR - Terry, 849-4359.

STUDENT FLUTE - used Gemeinhardt M2 student flute or Bundy student flute. Babu, Ext. 2568 or Ext. 1069.

TREADMILL - must be very reasonably priced, bells and whistles not important. Maria, Ext. 5483.

For Rent

CENTER MORICHES - 1 bdrm. bsmt. apt., l/r, full kit. & bath, outside ent., no smkg., great location, Holiday Beach area, close to BNL, utils. incl. $1,000/mo. 909-2452.

EAST MORICHES - 1-bdrm. apt. in lge histrc home, grd flr, walk to water & town, sunporch, 2 priv. ents., parking, non-smoker, refs. $900/mo. Ext. 4979 or 513-6688.

EAST MORICHES - furn. studio, l/r-bdrm. combo, dining area w/microwave kitchenette, bath w/shwr., off-st. prkg., pvt. ent. utilities incl., no smkg. $900/mo. 878-4246.

MIDDLE ISLAND - Fairfield apt, 2 bdrm, new bath, balc., kit. m/w, d/w, a/c, no smkg, ht/gas incl; avail. 10/21-Apr. or tkeovr, no sec, 1 mo free. $1,250/mo. Ext. 4974 or 833-6031.

MILLER PLACE - share lg. furn. non-smkg. Col. home in prof. resid. area, deck, fenced yard, cac, internet, tv cable, own w/w bdrm., 10 mi. to BNL. $650/mo. 744-8386.

SHIRLEY - lg. 2-bdrm, l/r, eik, full bath, util. rm., sep. ent., no smkg/pets, sec. $1,300/mo. 591-4259.

SHIRLEY - lg. 1st flr., 1bdrm., 1bath., a/c, eik, pvt. ent. & privacy fenced yard, utils. & cable incl., just off Wlm. Floyd, approx 1 mile to ocean. $850/mo. Maria, Ext. 4160.

SHOREHAM - 3-bdrm. ranch, 1 bath, l/r, den, kit., w/d, 1-car gar., lg. yard, utilities extra. $1,800/mo. 258-4607.

SHOREHAM - 1 lg. bdrm, office, fully carpeted lr; kitch, full bath, cable, internet access, pvt. ent., prof. couple, no smkg./pets, 8 mi. to BNL $1,200/mo. 445-7838.

SHOREHAM - share non-smkg. house, own lg. furn./unfurn. bdrm., 7 miles to BNL. $650/mo. 744-3543.

STONY BROOK - lg. 2bdrm, walk to LIRR, beach, SBU, f/p, wd flr., parkg, deck, d/w, laundry, utils. partially incl. water, cable, tv, no smkg./pets. $1,700/mo. 495-2248.

WADING RIVER - furn. apt., bdrm, l/r, kit., full bath, satellite tv, 2nd flr., no smkg./pets. $1,200/mo. 739-7234.

YAPHANK - 3-bdrm., garage, f/b, c/a, refs + sec. req'd. $1,600/mo. Ext. 5248.

NEWPORT RICHEY, FL - 2-bdrm., 2-bath condo, golf crses, pools, clubhse, 15 min. to Gulf beach, avail. Dec.-Feb., 2 mo. min., utils. incl. except phone. $1,200/mo. 929-3586.

For Sale

CENTER MORICHES - Pestine 3-bdrm., 2-bath contemporary ranch plus sep. 1-bdrm. apt., fully updated, on 1/2 acre, close to Lab. $539,000 878-6220.

KINGS PARK - 2-fam., 11-rm hi ranch, 4 BR, 2 bth, all renov., all new, needs nothing, oak flr, ss appls, skylites, cath. ceils. $479,000/neg. Richard, Ext. 5319 or 835-8309.

SHOREHAM - Dutch Colonial, 4 bdrm., 2 bath, d/r, l/r, lg. fam. rm., wood flrs., new lg. kit., new applis., 1-car gar, igp, fenced yrd., family n'hood. $469,000/neg. 258-4607.

SHOREHAM - 10-rm Col., 4 bdrm, 2 1/2 bath, 2-car gar., full bsmt. 3 season rm w/ jacuzzi, deck w/awning, .68 lot, 10 min to Lab, $479,900/neg. Ext. 6153 or 821-8915.

SOUND BEACH - 3 bdrm, 1-1/2 bath, new Col., large eik, fireplace, bsmnt, level corner lot. Taxes $2,900. $350,000 821-1271.

WADING RIVER - 4 bdrm, 2 bath. Fenced back yard. Short walk to priv. beach. $339,000/neg. Morris, Ext. 4315, 929-4993.

BOYNTON BEACH, FL - 55+ comm., 1800 sq. ft., 2/2+ den, near clubhouse, pool, tennis & shopping $239,900/neg. 561-495-0187.

CAROLINA BEACH, NC - 3-bdrm. 3-bath beachfrnt t/house w/in/outdr. pools, nr Wilmington, Southport, beach, Sept. & Oct., $160/night or weekly/$900, 516-810-0196.

In Appreciation

During our time of sorrow we learn how much our friends mean to us. Your kindness and sympathy will always be remembered. — Guy Eaton & family.

I thank my friends at BNL for all their thoughts, gifts and prayers during the passing of my Dad. You made a hard time that much easier. — James Cassidy, Jr.

Friday Nights Live!
Dance Social Tonight, 9/22, Live Band 9/29

Tonight: Friday, 9/22. The BNL Social & Cultural Club invites all to a **Dance Social and "Bachata" workshop,** DJ music**,** with Rudy Alforque, 7-11:30 p.m. Admission of $15 includes cold food buffet, cookies, coffee, and 2 hours of lessons from 7:15 p.m.

Friday, 9/29 - Come Dance to Live Music by 'Fame'

All are invited to enjoy live music by "Fame" band, led by ballroom/Latin dance instructor Louis del Prete. Fame plays ballroom, Latin, and swing. Admission of $20 includes cold food buffet, cookies, coffee, and one hour of line-dance instruction, starting at 7 p.m. The band will play 8:30 p.m. - midnight.

the Bulletin

Published weekly by the Media & Communications Office for the employees, facility users, and retirees of Brookhaven National Laboratory.

Liz Seubert, editor
John Galvin, reporter
Roger Stoutenburgh, photographer

On the Web, the Bulletin is located at www.bnl.gov/bnlweb/pubaf/bulletin.html. A calendar listing scientific and technical seminars and lectures is found at www.bnl.gov/bnlweb/pubaf/calendar.html.

Bldg. 134, P.O. Box 5000
Upton, NY 11973-5000
phone: (631) 344-2345
fax: (631) 344-3368
e-mail: bulletin@bnl.gov