Bulletin



Vol. 66 - No. 29 August 24, 2012

Director's Message

By Sam Aronson In response to Brookhaven Science Associates' (BSA) concern over the number of recent significant operational events,

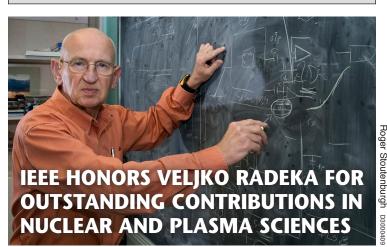
the BSA Board commissioned a Management Peer Review. Two weeks ago, the review team began a week of interviews, work observations, and meeting observations here on site to help us develop ways to improve operational performance. The team consisted of five experienced operations and safety leaders from Battelle-managed labs and from Stony Brook



University (SBU).
Jeff Smith, Deputy
Director for Operations at Oak
Ridge National
Laboratory and
BSA Board member,
led the team. A
week ago, Jeff met

on the phone with me and the other members of the Policy Council to go over the team's findings and recommendations. Since then, the Policy Council has been meeting daily to discuss how we'll implement the changes needed. Three issues were called out by the team:

• The Lab's decision-making process must be more... See Director's Msg. on p. 2



The Institute of Electrical and Electronics Engineers (IEEE) will honor Veljko Radeka, head of BNL's Instrumentation Division, with the 2013 Marie Sklodowska-Curie Award. This award recognizes outstanding contributions to the field of nuclear and plasma sciences and engineering.

IEEE, which is the world's leading professional association for the advancement of technology, commended Radeka "for the development of new radiation detectors, electronics, and systems that operate at the fundamental limits of performance, enabling discoveries in many areas of science." This is only the third year that the Marie Sklodowska-Curie Award has been given.

"I certainly didn't expect this honor," Radeka said. "As with previous awards, I must recognize the many colleagues and collaborators that I have been for the formal and bards steam processes within. Radeka's team continues to innovate PET technology; they recently developed RatCAP, a miniature PET scanner for rats, and are now working on a breast-imaging device that

Radeka first joined BNL's Instrumentation Division as a visiting scientist in 1962, and has served as the division head for the last forty years. Under his direction, the Instrumentation Division became a leading resource in the Department of Energy for research on radiation detectors and microelectronics, and its members' work has impacted a spectrum of scientific disciplines.

In the 1970s, Radeka's team built the first electromagnetic calorimeter, a tool used in accelerators to measure the energy of particles. They later improved upon their design with liquid argon calorimeters. This type of detector is used today at laboratories around the globe, including the Large Hadron Collider at the European Center for Nuclear Research (CERN). Radeka continues to explore the use of liquid argon in his current research for the Long Baseline Neutrino Experiment (LBNE), which seeks to measure the properties of neutrinos.

The Instrumentation Division was also responsible for the development of low-noise electronics, which improve the precision of experimental results by eliminating background noise, and positron emission tomography (PET), a technique that uses radioactive tracers to track molecular and biological processes within. Radeka's team nology: they recently developed RatCAP, a miniature PET scanner for rats, and are now working on a breast-imaging device that combines that capabilities of PET and magnetic resonance imaging (MRI).

Radeka earned a Ph.D. in engineering sciences of the University of Zagreb, Croatia, in 1961. He holds two instrumentation patents and has authored nearly 200 publications. He is a Life Fellow of IEEE, a Fellow of the American Physical Society, and received the IEEE's Centennial Medal in 1984 and Harold Wheeler Award in 2009. Radeka will receive the Marie Sklodowska-Curie Award in a ceremony later this year.

— Aviva Hope Rutkin

Save the Date: BSA Distinguished Lecture, 10/9 'The Atomic Bombs President Truman Did Not Drop'

Michael J. Devine, Director of the Harry S. Truman Presidential Library



BNL's Howard Gordon, Deputy Operations Program Manager for the U.S. ATLAS collaboration at the Large Hadron Collider (LHC), recently received a nice surprise in his BNL mailbox:

a letter from The White House. The letter, on behalf of the Obama Administration and signed by John Holdren, Director of the Office of Science and Technology Policy, congratulated the collaboration for their recent "discovery of the Higgs boson," the final piece of the Standard



Model purported to give mass to other fundamental particles. A similar letter was sent to the U.S. CMS Collaboration who announced similar results.

The discovery, the letter notes, "represents a triumph for fundamental science and paves the way for a deeper understanding of the universe."

"While we need more data to be sure this is the Standard Model Higgs," said Gordon, "the discovery represents an effective collaboration on a global scale where the U.S. made critical contributions. The plans at the LHC lead to opportunities for further discoveries in the coming decades."

Scientists from Brookhaven and other U.S. institutions have played and continue to play a key role in the design, construction, and operation of the ATLAS experiment, and in data analysis and "triggering" — deciding which events to explore in detail to search for signs of the Higgs and other interesting physics.

The letter from The White House expressed great pride in... *See Congratulations on p. 2*

Scientists Create Low-Lignin Plants With Improved Potential for Biofuel Production

Engineered enzyme alters cell wall composition in ways that could make it easier to convert plant biomass into biofuels

Scientists at BNL have created a new enzyme that effectively "masks" the synthetic precursors of lignin, a plant cell wall component that makes plant biomass particularly difficult to break down. When it was expressed in plants, this enzyme substantially reduced lignin content in the cell wall and increased the digestibility of cell wall biomass, which should make it easier to convert plant biomass into biofuels. A paper describing the research was published in The Plant Cell on July 31, 2012.

"We are excited about this study because it not only furthers our fundamental understanding of the molecular mechanisms by which lignin precursors are incorporated into cell walls, but also offers us a potential biotechnological solution in improving plant biomass digestibility," said BNL biologist Chang-Jun (C.J.) Liu. Liu collaborated on the research with BNL scientists Kewei Zhang, Mohammed-Wadud Bhuiya, and Yuchen Miao, and a nuclear magnetic resonance team at the University of Wisconsin. This research was funded by the DOE Office

A very rigid aromatic polymer and integral cell wall component, lignin prevents digestive enzymes from accessing the simple sugars of cellulose fibers, which are needed to produce usable fuels. Today's industrial processing methods require cell wall biomass to be pretreated to remove lignin, adding to the cost of biofuel production. Incorporating the new enzyme into plants could substantially reduce the cost of that step.

The scientists first engineered their enzyme in 2009 by modi-



Kewei Zhang (left) and C.J. Liu are exploring ways to make plants easier to convert to biofuels.

fying one that has a different function but is naturally found in plants. They found that if they mutated two key amino acid sites in the enzyme's genetic code, the new enzyme could modify lignin precursors in such a way that would prevent them from coupling to form the lignin polymer.

However, when they then inserted the mutated enzyme into *Arabidopsis*, a small flowering plant commonly used in experiments, it was ineffective.

"We found that the enzyme didn't show the expected effect," Liu said. "It worked nicely on the bench, but not in the plant."

The group went back to the drawing board, using BNL's National Synchrotron Light Source to determine the enzyme's x-ray crystal structure. Eventually, they discovered additional amino acid mutations that only made a small difference in the lab, but had a significant effect in plants.

The new enzyme reduced the lignin content of the *Arabidopsis* plants by up to 24 percent, leading to a 21 percent increase in the release of cell wall sugars. Further, it did so without compromising the plant's development or significantly reducing the biomass yield.

The next step is to test the enzyme's function in poplar trees or other DOE-dedicated energy crops, to see if it will improve cell wall biomass digestibility by reducing lignin. Poplars, which have a relatively fast growth rate and high biomass yield, are a good choice for industrial applications.

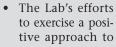
Additionally, the group plans to continue tweaking their enzyme to reduce either of the two major subunits of lignin, guaiacyl and syringyl in the cell wall. This too would change lignin's structure, which might further facilitate cell wall degradability and/or the de-lignification process.

See **Plant Lignin** on p. 2

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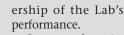
Director's Message

Continued from p. 1 ...effective. Decisions by the Lab's senior management have to be timely, clear, and well communicated.



accountability must go further. We cannot allow ourselves and each other to "opt out" of approved procedures and expected performance.

 Facilities & Operations workers need to be effectively engaged in planning and risk identification; the interaction between workers and their front-line supervisors must support mutual own-



I accept these issues — they're on target and point to improvements that we all have to make, starting with me, if we want BNL to step

up its performance to a level we can be proud of and that will support the success of our mission.

On Tuesday morning, I discussed the review and the Policy Council's initial responses with the Management Council to get their input and to begin the process of refining and communicating our response. Communication to and engagement with the whole staff will follow.

Congratulations from p. 1

...these U.S. contributions: "Clearly, the scientific expertise and ingenuity of U.S. scientists have been essential components of the discovery. Furthermore, the astounding scientific achievement and the technological and educational benefits of your work demonstrate that our national investment in fundamental science has been well placed."

As many scientists have noted, the recent signs of a particle that is likely to be the Higgs from two experiments at the LHC, ATLAS and CMS, are not an endpoint of discovery, but rather the starting point for a detailed exploration of this particle's properties and its implications

for the larger structure of matter.

"The discovery of the Higgs boson has captured the imagination of the American public, and along with our fellow citizens, I look forward to your continued exploration of the submicroscopic universe," Holdren concluded.

This news came as many members of ATLAS and the other LHC experiments — as well as STAR and PHENIX, the two collaborations at the Relativistic Heavy Ion Collider (RHIC) — were gathered at Quark Matter 2012 in Washington, D.C., to discuss another area of physics: collisions of heavy ions that also explore the early universe with a connection to the origin of mass, at least for visible matter.

— Karen McNulty Walsh

Hurricane Season: How You & BNL Can Prepare

By Mike Venegoni, Manager, Office of Emergency Management

Hurricane season began on June 1 and runs until Nov. 30; however the historically active period for the Long Island region is now through Oct. 15. The best time to ensure the Brookhaven Lab community is prepared is well before a storm threatens us.

Receive Emergency Notifications

During hurricanes and other emergencies, the Lab's Office of Emergency Management (OEM) uses the Everbridge Mass Notification system to send urgent messages to Lab employees via email, text messaging, and voice messages. Please make sure vour contact information is accurate in People-Soft (1.usa.gov/PXIfy6) so we can contact you if the need arises. In PeopleSoft, select "Personal Information," to verify, add, or change email addresses and phone numbers. The Lab will communicate its operating status before and after a hurricane or other emergency event using this system. Remember: you may not be able to access your work voicemail or email during a hurricane. The Everbridge notifications are in addition to the emergency notification banner on the Lab's internal and external homepages and Labwide broadcast email to every @bnl.gov address.

I also encourage everyone to visit Suffolk County's webpage on the CodeRED alert system (bit. ly/NgCPOR). The county will use this system to contact Suffolk residents in the event of an actual or impending emergency. It delivers

emergency information specific to location, by phone, text message, and email based on a home or work address you provide.

How BNL Prepares... And Recovers

The Lab's Emergency Response Group follows a protocol when a hurricane or tropical storm is predicted to make landfall locally. In case a storm is expected, you'll be instructed to secure all information and equipment, and prepare yourself to be ready to be away from the Lab for many days. Once the storm has passed, our focus will switch to recovery and transitioning the Lab back to functional status — with safety as our top priority.

How You Can Prepare Your Home and Family

When a major storm hits, assistance from outside the region can take up to 72 hours to arrive. Local authorities recommend that residents plan to be self-sufficient for up to three days following a disaster.

One excellent way to prepare yourself and your family is to visit the Lab's OEM website on hurricane preparedness (1.usa. gov/SnrYnc). This site features checklists and guides to help you prepare your home and your family for hurricanes and other kinds of disasters.

Here at OEM, our goal is for you to be fully prepared for a storm, both at work and at home. If you're ready and well-informed, it will make a significant difference in how you weather a storm

Making Room for BNL's Next Facility: The Northeast Solar Energy Research Center

By Bob Lofaro, Renewable Energy Group Leader

Have you noticed the activity along Brookhaven Avenue across from the National Synchrotron Light Source II? Earlier this summer, preparations began in that area for a new user facility at Brookhaven Lab: the Northeast Solar Energy Research Center (NSERC) solar photovoltaic research array. There, researchers from Brookhaven and other national labs, academia, and industry will test new technologies for collecting clean energy from the sun and making it available for use in our homes and businesses as efficiently and economically as possible.

Brookhaven Lab: The Place for Solar Research

The NSERC array will produce between 700 kilowatts (kW) and one megawatt (MW) of electric power that will be used on site. However, its real value will be the research it enables to help address some of the major challenges to deploying more solar plants here in the northeast — where there are four seasons, clouds, rain, fog, and snow — unlike other solar plants built in hotter, dryer areas of the country.

The array will sit atop nearly seven acres along Brookhaven Avenue and Renaissance Road, less than a mile from the 200acre, 32 MW Long Island Solar Farm (LISF) at Brookhaven, which has been collecting energy to power up to 4,500 homes via the Long Island Power Authority (LIPA) grid since November 2011. By being the first to host such large-scale solar arrays in the northeast, the Lab is positioning itself at the forefront of research to help develop real-world solar energy technologies that will benefit Long Island, New York State, and the nation.

NSERC development is being led by the Lab's Renewable Energy Group, which is part of the Sustainable Energy Technologies Department within the Global and Regional Solutions Directorate (GARS) that was established by the Blueprint — the Lab's plan for growth and development.

It really has been a team effort, however, with support coming from many groups at the Lab, including members of the Environment & Life Sciences and Facilities & Operations Directorates, Information Technology and Procurement & Property Management Divisions, and the DOE Brookhaven Site Office. The energy research this project enables will contribute to the Lab's larger

"Our enzyme currently modi-

fies the major lignin precursors

indiscriminately. Therefore, in

plants, it effectively reduces to-

tal lignin content but does not

change lignin composition,"

explained Liu. "Ideally we will

develop additional enzymes that

will enable us to precisely tune

lignin compositions or change its

lignin biosynthesis in plants,

the scientists also expect to seek

With success in controlling

Plant Lignin from p. 1

structures."

additional expertise to assess the agricultural traits of the resulting transgenic crops, and to explore the commercial potential of using these modified forms of biomass as biofuel feedstocks.

DOE's Office of Science is the single largest supporter of basic research in the physical sciences in the United States, and is working to address some of the most pressing challenges of our time. For more information, please visit http://science.energy.gov.

— Aviva Hope Rutkin

SITE OF THE Northeast Solar Energy Research Center (NSERC) Solar Photovoltaic Research Array

BROOKHAVEN NATIONAL LABORATORY

BROOKHAVEN NATIONAL LABORATORY

The sign posted at the site of the future Northeast Solar Energy Research Center solar photovoltaic research array at Brookhaven Lab.

BLUEPRINT

NSERC development is being led by the Lab's Renewable Energy Group of the Global and Regional Solutions Directorate (GARS) that was established by the Blueprint the Laboratory's plan for growth and development.

strategy for 21st Century Energy Security that is supported by our staff and the world-class facilities we operate within walking distance of NSERC, including the Center for Functional Nanomaterials, and future Interdisciplinary Science Building and NSLS-II.

The Renewable Energy Group has spearheaded development of the research agenda and design requirements for NSERC by collaborating with solar energy experts and stakeholders from across the country, including:

- American Superconductor
- Blue Oak Energy
- BP Solar
- Department of Energy's (DOE) Energy Efficiency and Renewable Energy's Solar Energy Technology Program
- Electric Power Research Institute
- General Electric
- LIPA
- National Renewable Energy Laboratory
- New York State Energy Research and Development Authority
- Stony Brook University

The Backbones of the New Solar Research Facility

One condition DOE set when it granted BP Solar an easement for the land to build the LISF on its property here in Upton was in-kind donations for research at Brookhaven. BP Solar is meeting that obligation by providing much of the equipment — panels, racks, and inverters — for the NSERC solar research array.

Budget permitting, the NSERC solar array will consist of three areas. One will contain up to 700 kW of fixed-tilt mounted solar panels. Another will include solar panels mounted on trackers that will follow the sun as it traverses the sky. The third will contain racks that can be used to test a variety of different solar panels and technologies simultaneously. The panels and infrastructure that make up these arrays will be reconfigurable for our users, so they can test new technologies, such as:

- Inverters to convert the sun's direct current energy into the alternating current that powers our homes
- Energy storage devices to integrate with the electrical grid
- Solar panels made from advanced materials

In addition to the solar array, NSERC will include indoor laboratories, where researchers can test solar technologies under controlled conditions. In one lab that is currently being set up in Bldg. 815, researchers will use a flash tester that simulates light from the sun to test new panel technologies and monitor material degradation.

Meeting Sustainability Goals

Unlike the power from the LISF that is directed off site, all power generated from the NSERC will be directed into our electrical grid for our own use at the Lab. The power from the NSERC solar array — while only a small percentage of what we use at BNL — will still help toward reaching our sustainability goal of using electricity that is produced from renewable resources.

NSERC Status Report

The conceptual design for the NSERC is complete and the land is being prepared for engineers to survey. Once the surveys are completed, the final design work will begin with a scheduled completion date sometime this fall. Currently, we are planning for construction of the array to start late this year or in early 2013.

BNL Blood Drive, 9/13

BNL's next blood drive will be held on Thursday, September 13, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. Donors must be 17 to 75 years of age, in good health, and weigh over 110 lbs. Other restrictions may apply. Donors should have a photo ID and know their social security number. To make an appointment, go to www.bnl.gov/hr/blooddrive/ or contact Liz Gilbert at Ext. 2315.

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Congratulations, Spotlight Winners of 2011

Hats off to the following 270 BNL employees, including those pictured above with Deputy Director for Science & Technology Doon Gibbs (front, center), who were honored with Spotlight Awards for 2011. These awards are given for extending extraordinary efforts in response to the needs of their departments or divisions.

ALD, Basic Energy Sciences: Linda Hanlon

ALD, Business Operations: Lisa Morello

ALD, Environment & Life Sciences: Robert Colichio

ALD, Global and Regional Solutions: Maria K. Ohlsen

ALD, Global and Regional Solutions: Bonnie E. Sherwood

ALD, Nuclear & Particle Physics: Elaine Zukowski

Biology Department: Paula Bennett, Jilian Fan, Jordan Hay, Richard M. Jackimowicz, James Jardine, and Judith Romeo

Center for Functional Nanomaterials: Edward Baker, Fernando Camino, Lorraine Davis, Ming Lu, Chang-Yong Nam, Dmytro Nykypanchuk, Christopher Ruggiero, and Percy Zahl

Chemistry Department: James Anselmini, Jean Petterson, Linda Sallustio, and Lee Walcott

Collider Accelerator Department: Richard Anderson, Larry Arnold, Sandy Asselta, Ray Atkins, Jack Barry, Cyrus Biscardi, Gladys Blas, Tracy Blydenburgh, Nancy Boyle, John Butler, Marty Candito, Doreen Cantelmo, Daniel J. Carroll, Vincent Castillo, Philip Cerniglia, Joseph Citro, Richard A. Conte, Tony Curcio, Roger Davis, Lynanne DiFilippo, Frank Donato, Harold Dorr, Bill Eisele, Sheikh Farooq, Arthur Fernando, Bartosz Frak, James Genco, Stefano Giorgio, Don Gosline, Heather Hartmann, Marion Heimerle, Greg Heppner, Terry Higgins, Darren Hillis, Garry Hubbard, Robert Hulsart, Stephen Jao, Ben Johnson, Robert Karl, Jim Kelly, Laiman Kuet, Slawko Kurczak, Walter Lamar, Dave Loughlin, Criselda Manalo, Pamela Manning, Kevin Mernick, Christine Meyer, Frank Naase, Peter Oddo, Pat O'Grady, Annabelle Petway, Nina Rivera, Caitlin Scholl, Harold H. Segura, Kirk Sinclair, Joel Vasquez, Matt Vescovi, Alan Weston, Mildred Wiener, Dan Wilson, and Paul Ziminski

Community, Education & Public Affairs: Cindi Biancarosa, Joe Gettler, Karen McNulty Walsh, and Melvyn Morris

Computational Science Center: Nicholas D'Imperio and Dimitrios Katramatos

Condensed Matter Physics & Materials Science: David Germack,

Alexsandra Lopez, and Arlene Rementer **Director's Office:** Liz Flynn

Environmental Sciences Department: Satoshi Endo, Edward Luke, Larry Milian, Tami Toto, Kwinten Van Weverberg, and Richard Wilke

Environmental Services Division: Richard Lagattolla, Lawrence

Lettieri, Robert Metz, and James Milligan **ES&H Directorate:** Firoza Zanoni

Facility Operations Office: John C. Biemer, Patrick Browne, Danny Farge, Gennaro Guerra, John Guido, Christopher Harris, Stephen Howell, Wayne Hulse, Rich Jones, Imran Latif, Michael Paquette, Arthur Piper, Stanley Sakry, Charles Schuster, Ted Selmer, and Joe Stanisci

Fiscal Services Division: Charlotte Buck, Christine Demarco, Marge Desmond, Christine Giammarino, Pat Johnson, Carolyn Lampasona, Jody Maddock, Jane O'Brien-Fox, Margherita Pirozzi, Margaret Reben,

New Phone Line for Badging Office

To provide better customer service and ensure your call is answered in a timely manner, the BNL Badge Office in Building 400 now has a dedicated telephone number to call regarding any questions you might have pertaining to badges, vehicle stickers, etc. The new number is 344-8711. As a reminder, the Badge Office is open Mon.-Thurs. from 8:30 a.m. till 4:00 p.m. and Friday from 8:30 a.m. till 1:00 p.m.

Senior Aqua-Aerobics Class Starts 9/5

BERA is again offering a low impact, fitness and aerobics-based class for active seniors that will include strength and balance, stretching and toning. Participants should check with their physician before starting any exercise program. Parents of employees are eligible to attend; they will need a family badge for entry at the main gate.

Classes will be held in the BNL pool on Wednesdays, 9-10 a.m., September 5 through December 19. The fee for this 16-week class is \$80. Advanced registration is necessary and cannot be pro-rated. Make checks payable to BERA mail to: Recreation Office, Bldg. 400A.

Helen Savage, Anne Schroeder, Linda Sinatra, and Gwen Wallasch

Human Resources & Occupational Medicine Division:

Monique Armann, Terrence Buck, Margaret Douglas, Erin Gettler, Margie Goodsell, Nanci Hoey, Marge Hughes, Monica Jackson, Joseph Lee, Rick Morales, Starr Munson, Jade Patterson, Christina Sanfilippo, Barbara Soeyadi, and Gary Welch

Information Technology Division: LaRosa Collins, Brian Foley, John Galvin, Lauren Jarrell, Anastasia Kuczewski, Stacey Kuczewski, Andrew Rohkohl, and Jon Stalhut

Instrumentation Division: Barbara Gaer and William Smith **Internal Audit & Oversight Office:** Jean Odin McCabe

Medical Department: Kristina Duryea, Thomas Maloney and Colleen Shea

Modernization Project Office: Daniel J. Ahearn, Laurie Casarole, Susan Hulse, Craig Sirot, and Michael Viscusi

Nonproliferation & National Security Department: Chris Cacace, Giuseppe S. Camarda, Cheryll A. Christie, Raymond Diaz, Donna Gill, Lori Happich, Ed Hoey, Laura MacArthur, Paul Philipsberg, Michele Rabatin, Tom Roberts, Barbara Roland, Christine Scaffidi, and Kelly Smith

Nuclear Science & Technology Department: Simerjeet K. Gill, Maryann Julian, and Avishai Ofan

Office of Intellectual Property & Industrial Partnerships: Colleen Michael, Poornima Upadhya, and Steven A. Wood, Jr.

Photon Sciences Directorate: Brent Buetow, Gabriella Carini, George Chanady, Gretchen Cisco, Todd Corwin, Joseph Cosentino, Ken Decker, Bill Gash, Peter Gross, Christine Herbst, Yong Hu, William Kieffner, Dennis Kuhne, Ed Marczak, Brian Mullany, Michael Poat, Vishy Ravindranath, Leo Reffi, Michelle Scaduto, Bruno Semon, Jayesh Shah, Xianbo Shi, Kunal Shroff, James (Will) Smart, Jean Smiles, Tammy Stein, John Van Houten, Brian Walsh, Nancye Wright, and Patrick Zoccoli

Physics Department: J. Carter Biggs, Tim Camarda, Marjorie Chaloupka, Joe Cracco, Dorothy Davis, Salvatore Marino, Elizabeth Mogavero, Marc Montemagno, Richard Ruggiero, Ken Sexton, Rahul Sharma, Alex Tkatchev, and Winnie Yu

Procurement & Property Management Division: Sheri Alexander, Roseann Callister, Frank D'Agostino, Bethann Gilman, Janet Schlock, and Barbara Simpson

Quality Management Office: Beth Evelly, Joyce Fortunato, and Stasia Scocca

Radiological Control: Laura Buscemi-Robles, Donald Olsen, Dave Stillwell, James Stuart, Joe Vignola, and William Zak

Safety & Health Services Division: Amber Aponte, Nicole Chiu, Mary Chuc, Linda Greves, Fred Horn, and Angela Levine

Site Resources Division: Mike Wooley

Staff Services Division: Danielle Bulcock, Cristoforo Caccavale, Ruth Comas, Cathy Ennis, Ralph Garappolo, and Andy Seelin

Superconducting Magnet Division: John Cintorino, Domenick Milidantri, Andrew Sauerwald, and Diana Votruba

Sustainable Energy Technologies Department: Sabrina Parrish **Waste Management Division:** Dan Blakely, Edward Gavin, Allen Jones, and Stephen Klerk

T-shirt Sale: 'Help Support Our Troops'

The AdoptaPlatoon (AAP) team in the Brookhaven Veterans Association (BVA) is selling navy T-shirts with an AAP logo insert on the left hand side, at \$15 each. All proceeds will go toward supporting our troops overseas.

Please order shirts by August 31 at the latest. Mail your name, Lab extension, email, and Bldg. number, with the size or sizes you require (Small, Medium, Large, X-large, 2X, 3X, or 4X), with your check made out to BVA, to Mike Paquette, Bldg. 97.

Arrivals & Departures

Arrivals –

Nishikanta Khandai Physics Vivek Thampy CMP&MS

- Departures -

John Giarratano... Site Resources
Young Jun Seo...... Medical
Kihyun Kim...........NNS
Donald Makowiecki........Instrum
Steven WoodTech Com

BERA Trips

BERA has scheduled trips to: the Big E State Fair, 9/15; Bally's Casino, Atlantic City, 9/15; Longwood Gardens, 9/29; more. See http://l.usa.gov/Mx-TxGG; buy tickets at the BERA Store in Berkner Hall.

CALENDAR

- WEEK OF 8/27 -

Tuesday, 8/28

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.

- WEEK OF 9/3 -

Monday, 9/3

Labor Day, Lab Holiday

No Bulletin issued this week.

Wednesday, 9/5

WAGO Demo Van on Site

1-3 p.m. Berkner Hall parking lot. WAGO representative Tony Silvestri will display terminal block, ethernet switches and other electrical control panel components made by WAGO. Contact Joe Kanzenberg, Powertech Controls, Inc., 63-368-6678, Ext. 218.

- WEEK OF 9/10 -

Wed. & Thur., 9/12,13

ASAP Career Workshop

8 a.m. Medical Research Center, Bldg. 490, Large Conference Room. Two-day workshop for the Association for Students & Postdocs (ASAP) at BNL on "Preparing for a Career After Your Postdoc," presented by the American Chemical Society and coordinated by Suzanne Golisz, Ext. 3816. Registration required (deadline, Sept. 5; additional guest deadline: Aug. 20). See www.bnl.gov/pcapworkshop/.

Thursday, 9/13

*BNL Blood Drive See notice, p. 2.

Please Take Survey On Vending Program

Please take the new survey about the BNL Vending Program managed by the New York State Commission for the Blind. The survey will be available online until August 31. Your comments are important in helping to target areas for improved service. See http://1.usa.gov/R170oe.

Ballroom Dance Lessons Start, 9/5

The BNL Ballroom Dance Club will start a new series of six lessons on Wednesday, September 5, in the North Ballroom at the Brookhaven Center.

- 5.30 p.m. Beginner Foxtrot
- 6.30 p.m. Intermediate Hustle
- 7.30 p.m. Intermediate Bolero

The cost is \$45/person for each six-week series. The class on September 12 will be postponed because of a BNL blood drive. For the beginners, foxtrot is really basic for all the smooth dances. Hustle is danced to disco music, while bolero is danced to a very slow rumba.

For registration information, contact Vinita Ghosh, Ext. 6226, ghoshvj@bnl.gov; Arup Ghosh, Ext. 3974, aghosh@bnl.gov; Mike Hanson, Ext. 2947, hanson@bnl.gov; or John Millener, Ext. 3853, millener@bnl.gov, or go to http://1.usa.gov/MNg6Zq.



Lightning Strike and Storm Detector Keeps Communication Line Workers Safe

When the communication lines overhead at the Lab require maintenance, workers go up in 'buckets' to access the lines and poles. But what happens when a storm approaches, and lightning strikes present a risk? A new tool helps Tom Baldwin's team know when lightning is in the area, giving them extra time to come down to safety. Watch the video to learn more: http://1.usa.gov/Ovien2.

Safety makes science possible at Brookhaven National I

at Brookhaven National Laboratory

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

To apply for a position, go to www.bnl.gov. Select "Job Opportunities," then "Search Job List."

LABORATORY RECRUITMENT - Oppor tunities for Laboratory employees only.

ELECTRICIAN POSITIONS (TEMPORARY) -Under minimum supervision lays out, constructs, installs, maintains, repairs and operates (in accordance with the national electrical codes, or as other wise directed) electrical systems, equipment, controls and related devices. May be required to perform similar duties on other than maintenance division equipment and facilities. Site Resources Division Please apply to Job ID # 16191.

ELECTRICIAN-A (LG- 10) - (TERM) - Under minimum supervision lays out, constructs, installs, maintains, repairs and operates (in accordance with the national electrical codes, or as otherwise directed) electrical systems, equipment, controls and related devices. May be required to perform similar duties on other than Maintenance Division equipment and facilities. Seven years of total experience composed of 5 years' apprenticeship, and 2 years' experience; or 7-9 years total experience composed of formal trade school plus minimum 2 years' experience or 9 years' experience preferred. Site Resources Division. Please apply to Job ID # 16192.

Motor Vehicles & Supplies

11 HYUNDAI ELANTRA - 27K mi. blue, orig owner, 1 yr old, preferred pckge w/alloy wheels. Sat radio. \$15,500 neg. Ext. 8613. 11 HARLEY DAVIDSON WIDEGLIDE - w/ owerCommander, Vance & Hines pipes, Dyno-tuned, more, \$13,000 neg. 902-5453. 10 PORSCHE CAYENNE GTS - 20.5K mi. black w/black int, excel, well maint, fully loaded incl navig. \$65,000 neg. Ext. 7114. 08 FORD EDGE SEL - 34K mi. Sync Computer, new tires, s/roof, chr fctry wheels, a/c, prem strt, 6/CD, SAT. \$16,200 neg. 872-9268. 06 YAMAHA ROAD STAR WARRIOR 1700CC - 2.3K mi. blue w/silver flames, gar, like new. \$7,500 neg. Bill, 772-2939. 05 MAZDA MVP-LX - 110K mi, white, DVD. a/t, a/c. \$5,500. Jae Yong, 516-319-3536. 03 TOYOTA CELICA - 98K mi. has bad trany, (\$1300 at BNL srvice sttion), clean, few scratches, etc., \$2,950 neg, tiuarez@bnl.gov. 03 TOYOTA CAMBY XI F = 110K mi. V6 3 ltr eng, a/t, a/c, c/c, lthr, dual htd/pwd seats, 6CD, m/rf, new tires, pics. \$7,990. Ext. 5910. 96 HARLEY DAVIDSON FLH - w/93ci S&S Sidewinder kit, S&S E carb, PowerCommander, more. \$7,500 neg. 902-5453. 96 FORD TAURUS WAGON - 155K mi. v/ gd gen cond, runs well, 3rd row bench seat in back, \$1,000 neg. Paul, Ext. 7727.

95 FORD ECONOLINE E 250 - 147K mi. E 250 cargo van 6cyl, a/t, am/fm, a/c ps/pb/rearfixed glass, \$3,000 neg. 344-8910. CARGO CARRIER SPORT 15 CAV - v/gd cond, for roof rack mounting, pics http://tinyurl.com/9t8w55h. Ext. 8205, jcitro@bnl.gov. FORD VAN LADDER BACKS - weather guard alum 3 pc rack w/air deflector vg cond \$125. 631-467-2691.

Boats

20' WELLCRAFT CENTER CONSOLE -200hp Mercury motor, depth finder, fish finder, trailer incld, \$4,700. 978-6008. 15' PERCEPTION SUNDANCE II KAYAK -Tandem w/Rudder, adj. seats plus removable child's seat, 2 avail \$200/ea. 929-5598.

Furnishings & Appliances

HOME ENTERTAINMENT CENTER - Oak 54Wx47hx16d, excel cond. pick-up in Smithtown, \$50. Mary, Ext. 6344. CHANDELIER - beautiful glass & brass excel cond. pic avail/\$100. difilip@bnl.gov. COFFEEMAKER, MIXER - Bl. & Dckr 8-Cup Progrmble Coffeemkr/\$15; Bl & Dr MX217 250-W 6-spd handheld mixer \$10. Ext. 3235. CONVECTION OVEN - GE Progile Performance, full size, new extra ceramic cooktop in box, excel cond, \$300. 924-7374. DEHUMIDIFIER - v/gd cond, Ig capacity, \$75. Joe, Ext. 3783, 487-1479 DINING ROOM - dark wood, Hutch, table/2 leaves & table pads, seats 10, 6 chairs, pic avail, \$1,200. difilip@bnl.gov. DINING SET - formal table, 42"x66" w/3 leaves, 11" ea, 6 chrs, seats at least 12, pics avail, ask/\$600. Lynda, Ext. 7235. FOOD PROCESSOR - Hamilton Beach w/3 attachments/\$20. Lynda, Ext. 7235. FREEZER & PARTS WASHER - Frzr: United, h-d upright, 60x28x24, \$100; Wshr: steel 20-gal w/flex nozzle, \$75. 902-5453. IKEA FURN - indiv 50% off on new Oct'11 purchased, or \$200 for dining table+chair/ coffee table, u-pic-up, 229-6162.

LAMP - \$20, photos avail. Ext. 3235. MICROWAVE/CONVECTION OVEN white, excel working cond/\$40. 603-6285. PORTABLE A/C-SHARP 10.500 BTU -Prtbl a/c + Ion Generator, CV2P10SX, 1 mo usage, like new \$370, 504-812-0543. REFRIGERATOR - Amana SS 23cf refrig, bottom pull out freezer w/ice maker, clean pic up in Sound Beach, \$275. 375-4343. REFRIGERATOR - Kenmore Elite 26 cu/ ft, s-by-side. in-dr ice dispenser & water, Bisque, excel cond, \$700, 924-7374. SOFA - black fabric modern sofa, excel cond/ \$150, photos avail. Ext. 3235. SOFA, COUCH, LOVE SEAT - leather,

pics avail, \$550; also gas grill/\$150, upic-up. dmcarthur@bnl.gov. TRIBECA BDRM SET - Espresso wood,

g/size bed headbrd/mattress incl. night stand, dresser w/mirror, \$600, Ext. 3235. TWIN BEDS - 2 sts, Sealy Posturepedic, mattress, box spring, metal frame & head-brd, exc cond, 200/neg/obo. 751-8351. TWO BAR STOOLS - 30" Dover Bar Stools w/suade swivel seats, pick up only, \$80/set, pics avail. arajnauth@bnl.gov. VACUUM CLEANER SANDWICH MAKER - Eureka canister Rally2TM 980A vacuum cleaner/\$25, sandwich maker/\$10. Ext. 3235. WROUGHT IRON - 48' round table w/4 chairs, end table, \$200: 12 chrs/\$25/ea; 2

Sports, Hobbies & Pets

'03 CARAVAN TRAILER - Coleman, C25B 25', bunk beds, a/c, heat, m/wave, range, refrig/frzr, mstr bed slideout, more. \$6,000 neg. Ext. 2326. 09 JAYCO TRAVEL TRAILER - 26', model-22fb, q/bed, rear ba, slps 6, a/c, awning, \$8,500. John, Ext. 5930 walshj@bnl.gov. AB LOUNGE 2 MAX - like new cond, fully assembled. \$35. brookhaven@optonline.net.

lounge chrs/\$30/ea; 928-5185, 283-0034.

BEAGLE PUPPIES - A.K.C. reg, pure breed, all shots, 8 avail. Frank, 965-1587. BICYCLE - 10-spd road bike, 23" frame, for rider about 5'8" to 5'11" tall, new tires, tubes, brakes, looks, rides like new, \$250. Ext. 5669. BMX BIKE - 20" kids, next Rampage bike

like new. \$50, 516-779-3116.

Starfish Swim

Lessons at BNL

Swim lessons will be offered on

Saturdays at the BNL pool for

BNL families' children who are

age four or older by June 2012.

Classes cost \$80 per child and will

be held September 15 through Oc-

tober 27, at 9 to 9:30 or 9:30 to 10

class time. Children should come dressed to swim, ready for their

class a few minutes early. To regis-

ter, send your name, life number,

home phone, cell phone, email

address, and your child's name,

age, and date of birth, and a check

for \$80 made out to BERA, to the

Recreation Office, Bldg. 400A, by

September 4. You might want to

bring your child and family to the

pool for Family Swim, Fridays, 5-8

p.m., \$5/family, to get used to the

pool size and noise before taking

this class. For more information

contact Joanne Rula, Ext. 8481.

CAMPER - Shamrock by Forest River, expandable 16-24', a/c, heat, 2/beds/queen/ full, slps 6, towable, w/V6, \$6000. 786-6814. CAMPER KODIAK K235 - 23'L, slide out, dinette, couch, 2/q beds, mwave, oven, frig/frzr, ba, heat, a/c, slps 6+, \$6500. 744-9308. GIANTS TICKETS - vs Bears 8/24, 2/

tixs/\$120, vs Pats 8/29, 2/tixs/\$120, Sec 249A Rw 7, prkg incld. Allan, Ext. 8493. GO CART & BMX BIKE - 20" schwinn matic bike/\$50; G cart 2/seater blk fox 1xt w/5hp tecumser motor, \$400. Richard, Ext. 7129. GOLF SET R/HAND PLAYER - Wilson Profile Sr Golfer Pkg, 12 pcs, w/stand bag, 2/shldr straps, hd covers/\$190. 929-3388. GUITAR CASE - Ovation Hardshell, like

new cond/\$50. Rich, Ext. 8186. HARLEY DAVIDSON LEATHER JACKET -XXL 105th Anniv, cost \$400, now on ebay for \$275, yours @\$ 125, 872-9268.

JET TICKETS - Giants vs Jets 8/18; 2/ tix/\$100; Panthers vs Jets 8/26; 2 tickets/\$100 bothw/prkg passes. Ext. 8217. MYI EC HOCKEY GOAL - 2-Mylec PVC Street Hockey Goals w/nets. \$10/ea. Jerry, Ext. 4089, 929-5598, ggranzen@bnl.gov. SURF BOARD - "Roxy", 7.5', light blue w/ pink detail, cushioned non-slip surface, leach incld, excel cond, \$300. 219-7196. YAMAHA ALTO SAXOPHONE - w/2 new reeds, neck Strap, cork grease, case, 2 Band Music books, Music Stand \$800. 929-0668. YAMAHA PIANO & BENCH - brown wal-

nut, excel. cond., \$1,500. 288-3112. Audio, Video & Computers

AMD ATHLON XP 2400+DESKTOP PC - 3GB RAM, 500GB HD, 20.1" BenQ LCD, fresh Windows XP install (COA incl/\$175. Ext. 3970. BRAND NEW LEAPSTER GAMES - Tangled & Toy Story Ages 4-7, for Leap Frog game console, \$30/both. Amber, Ext. 4056 DJ CONTROLLER - Traktor Kontrol S4 w/ Scratch Pro upgrade kit, like new in box, used maybe 3/times/\$700. Ext. 3970. JUNO-G SYNTHESIZER - \$499/like new, orig/\$999, great synthesizer/keybrd, neg. Tito, tjuarez@bnl.gov.

POW CONDITIONER, CHEAP RADIO -BELKIN AP1000-10/\$30, pics at http://tinyurl.com/9dazbeu. Kensuke, Ext. 5969. POWERED SAMSON MONITORS - 2 15", in/outdr. Samson DBA500 powered, built in amp, pics, \$500/neg. Anya, Ext. 3986. S'SUNG HOME THEATER - 1,000w Blu-ray, 5.1 channel brnd new, Nov'11 ask/\$150, moving, u-pic-up, http://tinyurl.com/7xpnh. 229-6162. SUBBOUND SOUND SYSTEM - Panasonic, gently used, w/iPod dock, pics, ask/\$80. arajnauth@bnl.gov.

Tools, House & Garden

CRAFTSMAN YARD VAC - Push Style Yard Vac. 6.5hp Briggs & Stratton eng. Approx 5 yrs old. \$100. Ext. 4089, 929-5598. VINYL SIDING - 2 squares Certainteed Mainstreet Dble 5" Dutchlap new in box. Tan. 12'L panels, covers 20'x10', \$85/obo, Ext. 3411.

Miscellaneous

BOARDING IN/NR NYC - Antoine, 15, 12th grader, lives Port Jeff, seeks board 4 nights/ wk, from Sept (sch yr), w/NYC family, at bus/ subway distance to Lycée Francais, 75th East. fmeot@bnl.gov. Francois, Ext. 8204. CHARCOAL GRILL - Master Forge Patio Barrel, steel ext, 16"x18" new/\$69 - used once, ask \$50. Mary, Ext. 6344. CHOPPER, STEAMER - various kitch gds, http://tinyurl.com/9dazbeu. suke, Ext. 5969 or okada@bnl.gov.

BERA Fitness Classes

BERA offers a wide range of fitness classes — something for just about everyone! Advanced registration is necessary to join classes, which cannot be pro-rated, because your paid registration is needed to secure instructors. Please make checks payable to BERA and mail to: Recreation Office, Bldg. 400A. For more information, go to www.bnl.gov/bera.

Aqua Aerobics: 8-week session. \$32 for once a week, \$60 for twice a week, 5:30-6:30 p.m. at the BNL Pool, Bldg 478

Tuesday: Sept. 11, 18, 25, Oct. 2, 9, 16, 23, 30 Thursday: Sept. 6, 13, 20, 27, Oct 4, 11, 18, 25

Pilates: 8-week session. \$40 for once a week, 5:30-6:30 p.m. at the Rec. Hall, Bldg. 317

Monday: Sept. 10, 17, 24, Oct. 1, 8, 15, 22, 29

Yogalates: 8-week session. \$40 for once a week or \$75 for twice a week, 12:15-1:15 p.m. at the Rec. Hall, Bldg. 317

Monday: Sept. 10, 17, 24, Oct. 1, 8, 15, 22, 29 Thursday: Sept. 6, 13, 20, 27, Oct. 4, 11, 18, 25

Zumba: 8-week session. \$40 for once a week or \$75 for twice a week, 12-1p.m. at the Gym, Bldg. 461

Tuesday: Sept. 11, 18, 25, Oct. 2, 9, 16, 23, 30 5:15-6:15 p.m. at the Rec. Hall – Bldg. 317

Wednesday: Sept. 12, 19, 26, Oct. 3, 10, 17, 24, 31

Exercise Facilities: Pool, Gymnasium, and Weight Room **BERA Sports & Clubs:** Volleyball, Soccer, Basketball

Details: www.bnl.gov/bera/recreation/clubs.asp

MAESTRO GUITAR - new w/case, neck strap, Beginner CD extra strings and care booklet, \$70. Mary, 929-0668.

PIANO, UPRIGHT - Kohler & Campbell, 57"I-38"h-26"deep. \$300. Joe, 922-3985. POOL LADDER - A-shaped, goes into agp, pics, \$50. 813-0497 or vbri1@aol.com. TOYS - Toss Across \$5, Play Hut \$15, FP Basketball Hoop \$15, Smartcycle w/2

games \$30, more, pics. difilip@bnl.gov. YAMAHA PIANO & BENCH - brown walnut, excel cond, \$1,500. 288-3112.

Community Involvement

BUILD A TESLA MUSEUM - Shoreham could have Museum for Tesla ... RIGHT NOW fund raiser on. To help, go to indiegogo.com/teslamuseum. wjackson@bnl.gov. CAR SHOW AT BIG DUCK - Antique Cars & Vendors Wanted- 9a-4p Sun, 9/16; rain date, Sun 9/23. Cars \$15 in adv, Vendor spots \$40. Info: 284-3737, bigduck.org. Ext. 8962. COMMUNITY BREAKFAST, FREE - @ Bellport Alliance, Wed 8/22 & 8/29, 9-11:30am, 1492 Montauk Hwy, Bellport. http://tinyurl.com/9nc7w9d. Ext. 5090.

EMS FUNDRAISER - for Rocky Point Fire Dept EMTs. Eat breakfast at Miller Place Applebe - \$10. Sep 22, 8a - 10a. Mark, Ext. 7978. FLAPJACK FUNDRAISER BREAKFAST - for N. Shore Horse Rescue @ Applebee's Riverhd, 8/26, 8-10a, \$10/meal incl pancakes, sausage, scrmbld eggs, beverage. 334-8258. GREEK CHURCH FESTIVAL - 8/23-26, Port Jeff, food, drinks, music, fireworks, raffle \$100, win cars (Mercedes Benz GLK), \$10K cash, more. www.kimisis.org/Greekfest. Ext. 7340. RIVER FRONT 24 RUN/WALK - 3rd Annual Endurance Run/Walk in Riverhead. Benefit for Suffolk Co. United Vets, 11/10-11/11. Teams welcome. http://tinyurl.

com/9242xow. riverfront24@gmail.com. **Farewell Gathering**

DAVID ALBURGER - A memorial service for David Alburger, who died on June 13, will be held at 3 p.m. on Sunday, September 16. St. James Parish Hall. Beaver Dam Road, Brookhaven Hamlet.

Free

21' CLIPPER MARINE 1972 CM21 MKII sailboat, swing keel, flush deck, incls 3 sails: much more, gd project boat. 960-8410. AIR CONDITIONER - 12000 Btu, works well, energy effic, needs plastic side panels. Steve, Ext. 4719 or sbennett@bnl.gov. FREE: 5 WEEK-OLD KITTENS - 2 male ALL white, 1 female white/gray, need love and a home. Donnacar62@aol.com. KENMORE SEWING MACHINE - Model #1311, incls wood cabinet & instruction manuel, u-pic-up, Holbrook area. 467-1947. KITTENS FOR ADOPTION - Rescued kittens, spayed/ neutered, dewormed & flea bathed, please save a kitten? rob4boat@hotmail.com. NEGLECTED BABYDOLLS - need TLC from being stored in an attic for a v/long time. Mi-

chelle, Ext. 4905 or mbarsalo@bnl.gov. SIZF 3XXX CLOTHES - Patient at Nursing Home is in need of size 3X clothes, Donation welcome, Thank you. Melinda, Ext. 2280.

Wanted

1-MONTH RENT/SUBLET IN NYC - an apt, mid-Sept to mid-Oct, up to \$2500/ mo/neg, int. elevator regd, Ext. 3621. CAT SITTER IN RIDGE, MID SEPT. - need someone to visit apt daily Sept.13-17 in Ridge, <10 mins to Lab, feed 2 cats + scoop litter. Will pay \$75 for the 5 days. Contact for more info. Andrew, ajames@bnl.gov. GALVANIZED TRAILER AXLE & PARTS wanted for a 1988 shoreline boat trailer, axle is approx 7'4", thanks, Larry. 905-6941. HOUSE, APT, CONDO - Family of 3 (nonsmkg, no pets) wants to rent 2 bdrm apt, hse/ condo, pref. nr. BNL, in gd school district, Thanks. Vlad, 342-8942, v2005t@gmail.com.

MEDICAL KNEE ROLLING AIDS - to use instead of crutches. Looking for donations, to help people in need. Maryellen, Ext. 3328. ORGANIC CHEM HELP - Looking for someone to help me make it through organic chem at SBU this fall. I work full time & have class 5 days a week so I'm limited in time. Any help would be great. William, 484-9888. PLASTIC FLOWER VASES - wanted free. to donate to a nursing home so patients can have flowers in their room. Thank you. NO Glass. Melinda, Ext. 2280.

PLASTIC STORAGE SHED - at least 7'x7 or larger, reasonable. Peter, Ext. 5551, 772-4751 or prjhhg@optonline.net.

POP TOPS FROM SODA/BEER CANS -Collecting for Shriner's Children's Hospital. Please send or drop off @ Bldg. 400A, Transportation Office. Paula, Ext. 2535. USED BOAT TRAILER - To haul motor boat 30' x 10' beam weighing 11,500 lbs. Must be in good to excel cond. Bill, 988-1130.

Lost & Found

GOLD BRACELET - Lost 8/16 around bldgs 725, 817 or 459, gold linked w/diamonds, sentimental value. Deborah, Ext. 7582 or lange@bnl.gov.

For Rent

CALLICOON, NY - Time share in Villa Roma Resort for the week of Sept 2 till Sept 9. Two bdrm, 2 ba. \$700/wk. Pat, Ext. 2539, 806-2124 or progers@bnl.gov. CORAM - priv rm & b/r, share lg home w/2 males, \$550/mo all, off st prkg, quiet, furnd or unfurnd, backgrd/credit check, 1st mo rent/1 mo sec. \$550/mo. Doug, Ext. 8477. E. PATCHOGUE - 1 bdrm apt, kitch, I/r, b/r, dw,

m/wave, cac, utils, cable/int incl, off st prkg, 1/ mo sec, no smkg. \$1,200/mo. 872-1874.

FARMINGVILLE - fully furn legal apt. I/r, Ig bdrm, full kit/ba, priv ent/drvwy/yd, util incl cable, own therm, no smkg/pets, 1 mo sec/ rent, 12 mins to Lab. \$1,000/mo. 732-2472. MANORVILLE - gated comm, Townhse,2 bdrms, 2 bath, I/r, d/r, kitch, 1 car gar, starting Oct1st-April 30th, plus util, non smkr, no pets. \$1,250/mo. 878-8442.

MASTIC - 3 bdrm 2 bath hse, 1 block to water, 15 min to bnl. \$1,800/mo. 848-8928. MIDDLE ISLAND - 1 bdrm apt, 1st flr, off st prkg, 12-15 min to Lab, \$950/mon. Charles, 516-859-6651 or yushen@bnl.gov. MILLER PLACE. - share furn Col. home in prof resid area 10 mi to BNL, int/ heat/ac, tv cable, own bdrm, all incl, responsible, no pet non-smkr. \$750/mo. 744-8386

N. SHIRLEY - 1 bdrm furn apt, grnd flr, nr. lab and stores, pvt ent, util incl, no smkg/ pets,1/mo rent/sec. \$850/mo. Ext. 3849. PORT JEFFERSON - 1/bdrm apt, beauti-\$1,167/mo. Raluca, Ext. 3235.

RIVERHEAD - 3 bdrm, 2 full ba, ranch, kit, dw, I/r, d/r, w/d, gar, new windws & furnace, nr shops, no smkg/pets, refs, credit ck read, 1/ mo sec + util, Sec8 ok. \$2,150/mo. 512-6470. SHOREHAM - 1 bdrm furn apt, I/r, d/r, full kit & ba, no smkg/pets, pvt ent/drvwy. util incl, 1/ mth sec. 5/min to Lab. \$1.150/mo. 375-7959. YAPHANK - spacious 2/bdrm apt, full size windows, I/r, eik, storage, f/bth, priv ent, no smkg/pets. \$1,350/mo. 495-7853.

For Sale

BAYPORT - 2300 sq ft house, 1 wooded acre nr Grt S. Bay, 4 bdrm, 2% ba, open flr plan, Ig windws, radiant heat, screened porch, excel schools. \$515,000. 617-332-6264.

CORAM - Ig 1 bdrm co-op, updated kitch & b/r, laundry across from unit, in/outdr pool & gym. \$104,900. Warren, Ext. 8329. ROCKY POINT, - 4 brm, 4 ba chalet, 1.2 acres, nr beach, EIK, granite counters, ss applis, huge lvr & porch, dr, fp, hwd flrs, a/c, 2-car gar, igs, legal m/d. \$435,000. 894-4320.



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

Liz Seubert, editor Joe Gettler, assistant editor Roger Stoutenburgh, photographer On the Web, the Bulletin is located at www.bnl.gov/bnlweb/pubaf/bulletin.asp. A calendar listing scientific and technical seminars and lectures is found at www. bnl.gov/bnlweb/pubaf/calendar.asp.

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