



Joseph Rubino 0350409

Participants at BNL's workshop on materials under extreme conditions.

BNL Hosts Workshop on Materials In Next-Generation Energy Systems

Characterization of materials under the extreme conditions of next-generation energy systems, nuclear systems in particular, was the focus of a workshop hosted by BNL on September 25–26.

Recognizing the key role of materials throughout the spectrum of energy systems, DOE organized a series of workshops addressing research needs. These workshops formed the springboard for addressing more specific issues and identifying future directions.

The BNL workshop focused on the advancements made in recent years in the characterization techniques using light source x-ray beams and electron beams. It also highlighted advances in modeling and simulation, such as atomistic simulations of materials behavior, multi-scale modeling, and molecular dynamics.

Organized by BNL's Energy Sciences Technology Department (EST) and the National Synchrotron Light Source (NSLS)/Joint Photon Sciences Institute, the workshop's primary goal was to establish a bridge

between extreme-conditions materials science and advances in materials characterization and computational techniques, including the role of next-generation light sources, such as the National Synchrotron Light Source II (NSLS-II) currently under construction at BNL.

Lab Director Sam Aronson welcomed conference participants from Los Alamos, Oak Ridge and Idaho national labs; the Brazilian and Canadian Light Sources; universities including MIT, Princeton, Columbia, Rutgers, Stevens Institute of Technology, City University of NY, Stony Brook, Florida State, and the University of Tennessee; and private enterprises.

As workshop organizer Nick Simos of EST and NSLS-II reported, the workshop succeeded in initiating an in-depth dialogue between scientists addressing the material issues and their potential performance limitations with scientists developing advanced characterization methods using the potential rendered by the light source x-ray beams, electron beams and other techniques.

See *Materials Conf.* on pg. 2

Joanna Fowler Awarded National Medal of Science

Joanna Fowler, a senior chemist and Director of the Radiotracer Chemistry, Instrumentation & Biological Imaging Program at BNL, was awarded the National Medal of Science at a White House ceremony on October 7. She is one of nine researchers named by President Barack Obama to receive the nation's highest award for lifetime achievement in science.

The National Medal of Science was created by statute in 1959 and is administered for the White House by the National Science Foundation. The annual award recognizes individuals who have made outstanding contributions to science and engineering. Nominees are selected by a committee of Presidential appointees based on their advanced knowledge in, and contributions to, the biological, behavioral/social, and physical sciences, as well as chemistry, engineering, computing and mathematics.

"This award is both humbling and gratifying," Fowler said. "It recognizes the importance of chemistry and imaging in advancing our knowledge of the human brain, particularly as it is affected by drugs, disease and aging."

Fowler has been a major contributor to brain research and the study of diseases such as addiction, which she has



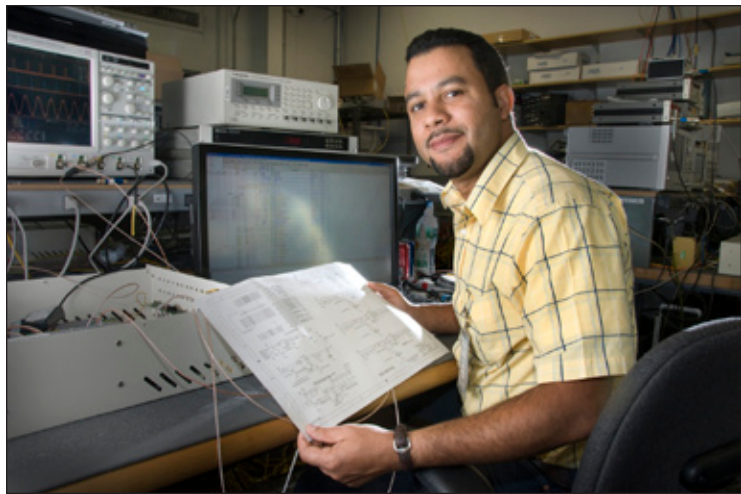
Joseph Rubino 0250009

studied using an imaging technique called positron emission tomography (PET). In 1976, Fowler and her colleagues synthesized 18F-fluorodeoxyglucose (FDG), a radiotracer used in PET. Today, FDG is widely used in hospitals and research centers throughout the world to diagnose and study neurological and psychiatric diseases and to diagnose cancer.

In her recent research,

Fowler has focused on changes in the brain circuits that are disrupted during drug addiction. Some of her studies included imaging the uptake and movement of cocaine and methamphetamine in the human brain, which shed light on why these drugs are so powerfully addictive. She is also involved in PET studies to understand the action of therapeutic drugs and...

See *Fowler* on pg. 2



Roger Stoutenburgh 01460909

Freddy Severino Honored With Luminary Award

The Hispanic Engineer National Achievement Awards Conference has chosen Freddy Severino, an engineer in the Collider-Accelerator Department (C-AD), as one of 29 Luminary honorees. The honorees are Hispanic engineers and scientists from corporate, government and military sectors who are recognized for their contributions to the Hispanic technical community as leaders and role models.

Today, October 9, at the organization's annual conference in Long Beach, California, Severino will be given a plaque in recognition of his technical achievements at BNL.

"I am honored to receive

this award," Severino said. "I'm fortunate to work with a great team of people at the Collider-Accelerator Department (C-AD), and within the Radiofrequency (RF) Group, in particular. Our achievements are the result of a lot of hard work and strong collaboration among many talented individuals."

As part of C-AD's RF Group, Severino is responsible for the design and operation of RF systems for all the accelerators in the C-AD complex. These include both operational machines, such as the Relativistic Heavy Ion Collider (RHIC), and cutting-edge R&D accelerators...

See *Severino* on pg. 2



Roger Stoutenburgh 0443909

With BNL Director Sam Aronson (fifth from left), are the winners of the 2009 BreakThru Mini-Grants at BNL: (from left) Elizabeth Donovan, Community Family Literacy Project; George Waldbauer, Suffolk County Police Athletic League; Delia Gibbs, Long Island Science Center; Ava Carroll, Wyandanch Youth Services We Care After School Program; and David Gordon, Living Through Learning Foundation.

Five Nonprofits Awarded Grants from BNL

Grants totaling \$25,000 will fund science, technology, engineering, and math programs for African American, Hispanic/Latino, and Native American youth in Suffolk County

BNL awarded five nonprofit organizations with the second set of BreakThru Mini-Grants totaling \$25,000 at a ceremony held at the Lab on September 25.

Each winning organization received up to \$5,000 and winners were selected based on new or existing programs designed to engage 10- to 15-year-old African Americans, Hispanics/Latinos(as), and/or Native Americans in Suffolk County as they learn about science, technology, engineering, and math (STEM) in creative ways.

In the second of a two-year pilot program, BreakThru Mini-Grants are funded by Brookhaven Science Associates, which manages BNL, and administered by the Lab's Community Relations Office.

"This program is a concrete way to inspire interest in science, technology, engineering, and math — so important in continuing this country's leadership in innovation," said Lab Director Sam Aronson. "We need to make the fullest use of all the people in this country who want to and can participate and eventually lead us in these areas."

The Community Family Literacy Project, Inc.

www.communitylibrary.org/

The Community Family Literacy Project promotes family literacy in the areas served by the Mastic-Moriches-Shirley Community Library and the William Floyd School District. Led by Elizabeth Donovan,

executive director, the Community Family Literacy Project's BreakThru Mini-Grant will be used to purchase 15 Apple iPod Touch devices for its "Anywhere, Anytime Learning: A Mobile Approach" program. Youth in the community, primarily of Hispanic and Latino descent, will learn how to use mobile devices and technology to access, gather, and process information as they also improve science, math, and literacy skills.

The Living Through Learning Foundation

www.livingthroughlearning.org/

The Living Through Learning Foundation assists children with chronic health conditions...

See *BreakThru* on pg. 3

Have a Cost-Saving Idea?

Submit it to the President’s SAVE Award Program

Do you have a smart idea for how the Department of Energy can trim costs and save taxpayer dollars? Submit your cost-saving initiative for potential inclusion in the President’s Budget and become the first-ever SAVE Award winner.

The deadline for submissions is Wednesday, October 14, 2009. The winner will meet with President Obama at the White House and have his or her savings initiative incorporated into the FY 2011 federal budget. In addition, the agency with the most participation in the contest will receive an award.

In a radio address on April 25, 2009, the President called for “a process through which every Government worker can submit their ideas for how their agency can save money and perform better.”

The President’s SAVE Award will fulfill this commitment by enabling any Federal employee to submit ideas for efficiencies and savings as part of the annual budget process. This contest is part of a larger effort to make sure that we invest taxpayer dollars in programs and initiatives that have proven records of success and fix or end programs that do not.

All submissions are confidential and can be made at <http://www.SaveAward.gov>. The winner will be announced in November.

Secretary of Energy Steven Chu said, “I urge you to participate not only so the Department of Energy can win the award for the best participation, but also because this effort is an important way to give the American people a government that does more for less.”

For more information, go to <http://www.SaveAward.gov> and watch the video from Office of Management and Budget Director Peter Orszag.

Fowler from pg. 1

...facilitate the introduction of new drugs into the practice of medicine.

Another research area is centered on variations in monoamine oxidase (MAO) genes and how they affect personality and vulnerability to psychiatric disorders. In earlier research, Fowler discovered that cigarette smokers have reduced levels of MAO, an enzyme that breaks down dopamine, the neurotransmitter that mediates reward, motivation and movement. This finding may account for the high rate of smoking in individuals who are depressed or addicted to drugs.

After earning a B.A. in chemistry at the University of South

Florida in 1964 and a Ph.D. in chemistry at the University of Colorado in 1967, Fowler carried out postdoctoral research at the University of East Anglia, in Norwich, England, and at BNL. She joined the Lab in 1969. Fowler’s research is funded by the DOE Office of Science, which provides infrastructure support for technology development, and the National Institutes of Health.

Fowler’s honors include the Society of Nuclear Medicine’s Paul Aebersold Award and DOE’s E.O. Lawrence Award, both received in 1997; the American Chemical Society’s Francis P. Garvin-John M. Olin Medal in 1998; and the Glen T.

Seaborg Award in 2002. She was elected to the National Academy of Sciences (NAS) in 2004, and, earlier this year, she was honored with the NAS Award in Chemical Sciences and was inducted into the Long Island Technology Hall of Fame. Fowler has published about 350 peer-reviewed articles and holds eight patents for radiolabeling procedures.

Three other BNL researchers have been honored with the National Medal of Science: Donald D. Van Slyke (Biological Sciences, 1965), Maurice Goldhaber (Physical Sciences, 1983), and Raymond Davis (Physical Sciences, 2001).

— Diane Greenberg

Materials Conf. from pg. 1

“We need to know more about the performance of materials when they are operating at the extreme states of radiation, temperature, pressure and aggressively corrosive environments which characterize the next-generation energy systems,” Simos said. “Excellent presentations were made during the workshop by renowned scientists in the fields of materials, characterization techniques and modeling, leading to very stimulating discussions.”

The participants discussed the

need for an integrated process and future facilities dedicated to the characterization of materials that support next-generation nuclear energy, including next-generation light source beamlines and electron beams. Organizers envision the meeting as the first in a series of workshops focusing on the characterization of such materials.

When completed in 2015, NSLS-II will deliver world-leading intensity and brightness, producing x-rays more than 10,000 times brighter than the current NSLS.

Workshop discussions explored the potential of x-ray beam parameters offered by next-generation light sources and neutron sources in the characterization of materials under the extreme conditions of new energy systems. BNL has a long history of energy systems research and has advanced capabilities in characterization techniques using the NSLS and Center for Functional Nanomaterials, as well as advanced computing with its Blue Gene supercomputer.

— Kay Cordtz

Public Hearing by Advisory Board On Radiation and Worker Health

Current and former BNL employees, contractors, and subcontractors who have or had cancers that they believe to have been caused by workplace radiation exposure at DOE sites, including BNL, can apply for Federal benefits offered through the Energy Employees Occupational Illness Compensation Program (EEOICPA). For more information see: <http://www.dol.gov/esa/owcp/energy/>.

In 2000 a Presidential panel, the Advisory Board on Radiation and Worker Health, was appointed to provide technical advice to

EEOICPA on cancer causation and on how best to estimate radiation dose. The Board is especially interested in work, through the years, that might have involved radiation exposure, as well as information about radiation monitoring and reporting practices, including throughout BNL’s history.

The Advisory Board is meeting at Danford’s in Port Jefferson; and representatives from the National Institute for Occupational Safety and Health will be available to answer questions. On October 20, 4:30-6 p.m.,

and on October 21, 6-7:30 p.m., the public will have the opportunity to provide comments to the Board. The comments will be documented in the official record (individual’s names will be kept confidential).

An agenda for the meeting can be found online: <http://www.cdc.gov/niosh/ocas/pdfs/abrwht/2009/da102009.pdf>.

For more information, contact Joseph Falco, MD MPH, BNL Point of Contact to the Energy Employees Occupational Illness Compensation Program, falco@bnl.gov, Ext. 3666.

BLUEPRINT UPDATE — New Directorates —

I am very pleased to announce a significant step forward in implementation of the BNL Blueprint with the formal creation of two new Laboratory directorates — Global and Regional Solutions, and Environment and Life Sciences.

The Global and Regional Solutions Directorate (GARS) will include the Energy Sciences and Technology Department, the Nonproliferation and National Security Department, and a new group called the Office of Technology Commercialization and Partnerships (TCP). TCP is comprised of licensing and sponsored research staff from the former Office of Intellectual Property and Technology Transfer (OIP/TT) and will be led by a new Commercialization Manager. Staff that performed OIP/TT’s legal functions will now report to the Legal Office but remain co-located with the TCP.

Gerry Stokes, the former CEO of Battelle-Japan, will be the new GARS Associate Laboratory Director (ALD). Gerry will arrive at Brookhaven during the week of October 5. You may recall that early Blueprint communications referred to a “Technology Solutions Portal” - we decided that Global and Regional Solutions is a more fitting description of the intended work of this directorate.

The Environment and Life Sciences Directorate (ELS) will include the Environmental Sciences, Biology, and Medical Departments. ELS will be led by interim ALD Fritz Henn and his deputy, Creighton Wirick, as we continue our search for a permanent ALD.

These organizational changes will better align the Lab’s structure with its strategic plan by growing our programs in applied science



Roger Stoulenburgh D0156005

Sam Aronson

and engineering, especially in energy- and national security-related R&D (in GARS), and by forming a more integrated approach to climate change R&D (in ELS). More details on both of these new directorates and all the Blueprint projects can be found on the Blueprint website at <http://intranet.bnl.gov/blueprint/projects.asp>.

— Sam Aronson

Severino from pg. 1

...such as the Energy Recovery Linac. Accelerator RF systems are used to control beam energy, maintain and manipulate the “bunching” of particles, stabilize particle motion, and control critical parameters, such as the distribution or spread in energies among particles.

“Basically, RF cavities provide ‘kicks’ to charged particles as they circulate in the accelerator ring,” Severino said. “These kicks can increase or decrease a particle’s energy, and by careful application and control, we can manipulate the motion of the particles to achieve the required performance. For example, we can kick all the particles simultaneously each time they travel around the ring, accelerating them to the energy desired by experimenters.”

Among Severino’s major achievements, of major significance were his contributions to the RHIC stochastic cooling project, in which he designed hardware and software crucial to the system. The stochastic cooling system, which is being expanded for the upcoming tenth RHIC run, is critical to increasing “integrated luminosity,” which is the number of useful collisions provided for experiments during the run. The system was recently cited

as one of the Lab’s great R&D success stories. (See The Bulletin of 11/9/07 and 6/26/09.) Severino is the coauthor of three peer-reviewed papers on the stochastic cooling system, and he is also named in several other scientific papers for his contributions in accelerator operations.

Severino has won three Spotlight awards for work on various technical projects. Currently, his primary focus is on the design and development of an embedded control architecture forming the heart of a new low-level RF control system at C-AD. His work on this system won an award for best poster presentation at the 2007 International Conference on Accelerator and Large Experimental Physics Control Systems.

Born in the Dominican Republic, Severino came to the U.S. in 1992. He joined BNL in 1996 as a senior technician, and his roles and responsibilities were steadily increased so that he was named to his current position as project engineer in 2008. He earned a B.S. from the State University of Farmingdale in 1998, and an M.S. from Hofstra University in 2006. He is a member of the Association for Computing Machinery.

— Diane Greenberg

Correction: In Memoriam, Yoshio Shimamoto

The Bulletin greatly regrets incorrect information given in the issue of September 25, 2009, about Yoshio Shimamoto, who died on August 27, 2009. Shimamoto joined the Lab’s then Nuclear Engineering Department on September 20, 1954, and two years later, joined the Applied Mathematics Division (AMD). When the division became a department in 1959, he served as Acting Chair until 1964, then as Chair 1964-75. Shimamoto also served on the U.S. Atomic Energy Commission’s Mathematics & Computer Science Research Advisory Committee as Secretary 1967 and 1968, and Chair, 1969 and 1970. He retired from AMD on October 31, 1987.

Defensive Driving Course: Two Parts, 10/19 & 20

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on Monday and Tuesday: October 19 and 20, in the Brookhaven Center South Room, 6 p.m.–9:15 p.m. The course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$38 per person. Pre-registration is required. To register, call Ed Sierra, 821-1013, and leave a message. Or take a New York DMV approved course online: <http://www.lidrivesafe.com/>.

BSA Noon Recital, 10/14

Trio Voce, a spectacular piano trio that thrills audiences with its passion, enthusiasm and ability to make music come alive, will perform on Wednesday, October 14, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the concert is free and open to the public. Visitors to the Lab age 16 and over must bring a photo I.D. The “Trio,” Jasmine Lin, Marina Hoover, and Patricia Tao, are established musicians who perform for live broadcasts on WFMT-Chicago. The BNL program includes works by Rachmaninov and Ravel. For more information, go to <http://www.triovoce.com/>.



Beatles Tribute Band ‘Mostly Moptop,’ 10/24

The classic rock band Mostly Moptop will perform on Saturday, October 24, at 8 p.m. in Berkner Hall. Sponsored by the BNL Music Club, the event is open to the public. All visitors to the Lab of 16 and older must bring a photo ID. Mostly Moptop derived their name from pop culture’s famous bowl-style haircut first sported by the Beatles in the early days of their fame. Formed in 1995, Mostly Moptop performs music from the Beatles repertoire as well as other classic rock songs from the 1960s to the early 1980s. Recognized for strong vocals, songwriting, and production talent, they have performed with musicians including Micky Dolenz of the Monkees, Petula Clark and Doc Severinsen. Tickets are \$15 in advance, \$20 on the day of the show. Buy tickets at the BERA Store or through www.ticketweb.com. See also www.myspace.com/mostlymoptop.



Walk to Help Fight Breast Cancer, 10/18

The annual “Making Strides Against Breast Cancer Walk” will be held on Sunday, 10/18, at Jones Beach State Park, starting in parking field 5. You may register between 8 a.m. and 11 a.m. and then begin the walk. Pick up a registration form at the BERA Sales Office or start your own on-line fund raising team at: makingstrides.acsevents.org/longisland.

Blood Drive Results

Generous BNLeers gave 120 pints of blood at the recent Blood Drive of September 29. Thanks for making a difference.

BreakThru from pg. 1

...by helping them understand, set, and achieve their life goals. Under the leadership of Executive Director David Gordon, the Living Through Learning Foundation’s BreakThru Mini-Grant will help fund the Virtual Learning Pilot Program, which will allow youth with sickle cell anemia at Stony Brook University Medical Center to take virtual field trips to the New York Hall of Science.

Through the use of a state-of-the-art videoconferencing platform, these children in the hospital, typically of African American descent, will experience fun, interactive science experiments and demonstrations occurring at the Hall of Science in real time. In addition to engaging these students to achieve active learning and 21st century skill-building goals, it is also hoped that this pilot will supply data to better understand how technology can be utilized to help minimize social and academic isolation for chronically ill children.

Long Island Science Center

www.lisciencecenter.org
The Long Island Science Center

BERA Trip: Join In!

Buy tickets weekdays, 9 a.m. – 3 p.m., at the BERA Store in Berkner Hall.

Foxwoods Casino: Saturday, 11/7. Leave BNL at 7:45 a.m. and take 8 p.m. ferry home. \$35 per person, includes bus, ferry, \$30 match play, lunch buffet, and three \$5 slot plays.

Celebrate Diwali, Festival of Lights, 11/7

The BERA Indo-American Association (IAA) will celebrate Diwali — The Festival of Lights — on Saturday, November 7, starting at 3 p.m. in Berkner Hall. This event showcases the rich culture and traditions of the Indian subcontinent through music, dance and arts. Indian snacks and a semi-formal Indian dinner after the cultural program will be served. Visitors to the Lab of 16 and over must bring a photo ID. Visit the following website for a request to perform and for reservations: <http://www.bnl.gov/bera/activities/iaa/diwali2009/>. A Rangoli Display is also planned. Anyone interested may contact Kumi Pandya at pandya@bnl.gov. Tickets are: adults/\$15, children under 12/\$9; after 10/31, adults/\$17 and children/\$10. You may pay through PayPal using credit cards. Tickets are fully refundable if cancelled by November 4.

aims to promote the knowledge and love of math, science, and technology. Through the leadership of Executive Director Delia Gibbs, the Long Island Science Center will use its BreakThru Mini-Grant to develop a new Aquatic Living Exhibit and Experiment Station (ALEES), which will be used for ongoing water ecology programs and experiments. Up to 30 Riverhead Middle School children from groups typically underrepresented in STEM fields will participate in an after-school program at the Science Center, where they will explore water ecology issues and then design and construct the Center’s future ALEES exhibit.

Suffolk County Police Athletic League, Inc.

www.eteamz.com/SCPAL/index.cfm
The Suffolk County Police Athletic League (PAL) provides resources and community-based educational and athletic programs to more than 26,000 youth in Suffolk County to prevent juvenile delinquency. Led by Executive Director George Waldbauer, Suffolk County PAL’s BreakThru Mini-Grant will be used to purchase computers for



Roger Stoutenburgh 02309090

Snapping Turtle Tots Snapped

Tiny snapping turtles are cuter if you do not look them up on the web.

Too soon, according to rueful would-be pet-owners and admiring leave-them-to-nature naturalists, these creatures will double and triple in size, reaching as much as 40 centimeters or more in length, and take on the characteristics for which their breed is known — becoming aggressive, mean, and dangerous to handle — or forceful, single-minded, don’t-fence-me-in wild ones, according to one’s viewpoint.

Common Snapping Turtles, like these snapped on site by Lab Photographer Roger Stoutenburgh, have the largest distribution of any turtle in North America. They are also found through Mexico, Central America and into South America as far south as Ecuador, west of the Andes.

They have large heads with two barbels on the chin and very long tails covered with three rows of plate-like tubercles. They inhabit all bodies of water, with a slight preference for muddy bottoms where they can hibernate and/or lurk in ambush for unsuspecting prey (in a manner devious or just reasonably intelligent). They eat almost anything, including vegetables, but they find a gourmet attraction to carrion.

According to one source, snapping turtles have even been used by police to detect dead bodies... but of course, you shouldn’t believe everything you read.

— Liz Seubert

Note from Tim Green, BNL’s Natural Resource Manager: All turtles in New York are protected. Enjoy their cuteness, but leave them in nature.

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Tuesday and Wednesday, October 13 & 14; and Tuesday and Wednesday, October 20 & 21, to answer employees’ questions about their financial matters.

The consultant will help you: understand the importance of protecting your assets against inflation, find the right allocation mix, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options.

For an appointment, call 1-800-732-8353.

About BreakThru Mini-Grants

The BreakThru Mini-Grants program is administered by BNL’s Community Relations Office and provides funds to stimulate local nonprofit community organizations that can inspire a new generation of youth growing up in an increasingly scientific and technological world. In the course of the two-year pilot program, nine nonprofit organizations have received a total of \$50,000 to increase interest and strengthen skills in science, technology, engineering, and math among Suffolk County’s 10- to 15-year-old African Americans, Hispanics/Latinos(as), and/or Native Americans, populations typically under-represented in those career fields.

— Joe Gettler

CALENDAR

— THIS WEEK —

Friday, 10/9

Body/Soul: Massage Day

11 a.m.-2 p.m. Berkner Hall, Room B. 10-min. massage. Pre-registration required. Call Michael Thorn, Ext. 8612 for appointment. See notice below.

— WEEK OF 10/12 —

Tuesday, 10/13

Body/Soul: Fitness Walk

Noon. Outside Bldg. 438. Rescheduled from Oct. 1. Meet for 2-mile walk. <http://intranet.bnl.gov/body soul>

Tour Gym, Pool, Weight Room

11:30 a.m.-1:30 p.m. Body & Soul event. Open house. See <http://intranet.bnl.gov/body soul>

Talk by Cole on Frank Oppenheimer

4 p.m. Berkner Hall. Science writer K.C. Cole will give a talk based on her book on Frank Oppenheimer. Sponsored by Brookhaven Women in Science. All are welcome to this free talk. Visitors to the Lab of 16 and over must carry a photo ID. To join the speaker for dinner at 5th Season Restaurant, Port Jefferson, after the talk, \$28/person, contact Kathy Walker, kwalker@bnl.gov, Ext. 7105.

Wednesday, 10/14

*BSA Noon Recital — Piano Trio

Noon. Berkner Hall. See left.

Talk: Peaceful Body, Quiet Mind

Noon. Berkner Hall, Room B. Talk by Nancy Losinno, EAP Manager. Register at <http://intranet.bnl.gov/body soul>

Body/Soul: Table Tennis

5 p.m. Bldg. 317. Join in a tournament or come to support the players in this active sport. All levels welcome. Register at <http://intranet.bnl.gov/body soul>

Thursday, 10/15

Body/Soul: Reiki, a Relaxing Tool

Noon-1 p.m. Bldg. 490, small conference room. Learn a way to relax, heal, balance. See <http://livinglightreiki.org/> and <http://intranet.bnl.gov/body soul>

Celebrate Body & Soul

Body & Soul health activities are on-going during October, sponsored by Brookhaven Science Associates and chaired by Michael Thorn and Jorge Romero through the Human Resources & Occupational Medicine Division. All the Lab community is invited to participate. For more information and to register for events, go to <http://intranet.bnl.gov/body soul/>.

Arrivals & Departures

— Arrivals —

Stefano AgnoliChemistry
Ana Akrap CMP&MS
Grigor Atoian C-AD
Guillaume Beuf Physics
Leonid Flaks Biology
Thomas Gadfort..... Physics
Hye-Sung Lee Physics
Thomas McElmurry Physics
Elizabeth Mulligan Medical
Anze Slosar Physics
Gerald StokesDir.’s Office
Kaitlin Thomassen CEGPA

— Departures —

Maria Cabail Medical
Robert Duffin Physics
Marie Gavigan..... C-AD
Kumara Mudalige CFN
Paul NorthrupEnviron. Sciences
Ann Reisman..... ES&T
Erin Rogers Nonp. & Nat’l Sec
Hongshan Zhang Physics

Classified Advertisements

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

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

TECHNICAL RESEARCH ASSOCIATE (T-6) - Requires an Associate's Degree in an applicable electronics or electrical engineering field of study, and a minimum of ten years of electronics experience in operation, calibration and repair of detection and health physics instrumentation, including a minimum of five years of active experience with DOE Radiological Assistance Program (RAP) or other comparable emergency response organization team with a CBRN hazardous materials background. Must demonstrate comprehensive knowledge, skills and experience in a broad radiation detection and health physics instrumentation field. Excellent communications (oral and written) and proven interpersonal skills are required as the candidate will work closely with RAP team and emergency response units from local, state and federal agencies, and will be required to prepare and deliver presentations. Responsible for the maintenance of the DOE Region 1 Radiological Assistance Program (RAP) instrumentation program. Will have the responsibility to plan, manage, and coordinate work scope, direct team equipment strategy during deployments, and supervise the equipment calibration and repair work as done by others for the program. Requires the individual to ensure that instrumentation is calibrated and maintained in a constant state of readiness for deployment. Serves as a delegate for the contractor program operations manager. Requires a considerable amount of travel, including after-hours work, as a member of an emergency response team, interacting with first responder organizations during deployments and exercises; attending and presenting training; and participation in working groups. Ability to obtain and maintain a "Q" security clearance is a must. Professional certification in NRRPT is desirable. Nonproliferation & National Security. Apply for Job ID #15062.

ADMINISTRATIVE SERVICES ASSISTANT (A-2) - Requires formal secretarial or office administration training, plus four years of relevant experience that demonstrates competence in administrative secretarial skills. Knowledge of MS Office programs (MS Word and Outlook) and familiarity with PeopleSoft. Excellent organizational skills and oral and written communication skills are essential. Requires the ability to multi-task, utilizing good judgment and discretion. Responsible for assisting Physics Manager of ES&H and Training to implement safety and training objectives. Will have frequent contract with other Laboratory departments to exchange information. Duties include scheduling safety meetings, maintaining training information, entering corrective actions into ATS system, editing safety web page and communicating training requirements to Physics employees and guests. Assist Astrophysics & Cosmology Group by arranging and processing domestic and foreign travel, submitting publications and maintaining group records. Will also interface with Department Chair's office to perform administrative duties such as scheduling, posting and announcing seminars and colloquia and maintaining room calendars. Physics Department. Apply for Job ID #15063.

ADMINISTRATIVE SERVICES ASSISTANT (A-2, term appointment) - Requires formal secretarial or office administrative training, plus four years of relevant experience that demonstrates competence in administrative secretarial skills. Knowledge and experience of Microsoft Office products (including Word, Outlook, Excel, and PowerPoint) as well as PeopleSoft is required. A working knowledge of Laboratory policies, practices and procedures as well as Adobe Acrobat is highly desirable. Must exercise initiative, good judgment, and be a team player. Under minimum supervision will perform a variety of skilled and complex secretarial tasks for the Diversity Office as well as the Office of International Services. Will maintain confidential administrative records and reports which will include, but are not limited to the preparation of presentations, procedure updates, planning and scheduling meetings, processing travel, purchasing office supplies and equipment, processing web requisitions, and routine maintenance of property management records for the Division. Additional responsibilities include the coordination of internal and external data analysis, assisting employee resource groups, contract administration, utilizing the Guest Information System, and coordinating student and personnel hiring and termination activities. Diversity Office. Apply for Job ID #15045.

OPEN RECRUITMENT - Opportunities for Lab employees and outside candidates.

ASSISTANT SCIENTIST (Catalysis Science) - Requires a Ph.D. in chemistry, chemical engineering or a related field, postdoctoral experience and a strong record of research accomplishment. Applications at a mid-career level will be considered. Will develop vigorous independent scientific research, while contributing to strong BNL interdisciplinary programs. We particularly seek candidates whose research advances *in-situ* nanoscale imaging in catalysis studies. Current BNL programs are in frontier areas of heterogeneous catalysis, electrocata-

lysis, photocatalysis and nanoscience, with an emphasis on basic research inspired by energy challenges (<http://www.bnl.gov/chemistry/catalysis/overview.asp>). Growing programs link basic and applied research in catalysis, biofuels, complex materials and solar energy. Research exploits unique facilities at the Center for Functional Nanomaterials (www.bnl.gov/cfn/), the National Synchrotron Light Source (www.nsls.bnl.gov/), and the future NSLS II. Candidates should submit a CV, a description of research interests, and list the names and email addresses of three references. Under the direction of Dr. A. Harris, Chair, Chemistry Department. Apply for Job ID #15058.

POSTDOCTORAL RESEARCH ASSOCIATE (Recycling Photovoltaics - two positions) - Requires a Ph.D. in metallurgical or chemical engineering and research experience in extractive metallurgy and electrochemistry. Good knowledge of hydro-lab techniques (digestion of raw samples, preparation of standard solutions, and dilution of sample solutions), hydrometallurgical separation techniques and ICP spectrometric analysis of metals is also required. Experience with mathematical modeling in metallurgical and materials processing is a strong plus. Strong academic background and lab experience in hydro-extractive metallurgy and electrochemistry is desired, as is experience with hydro-lab techniques (performing wet spectrometric analysis of metals) and mathematical modeling of mass transfer metallurgical and materials processing. Good writing and communications skills and some experience with writing technical proposals are also desired. The objective of the research is to effectively recover and recycle conducting metals from CdTe and CuInSe₂ photovoltaic modules. This is part of the PV product and waste recycling activities of the National Photovoltaic Environmental Research Program operating at BNL since 1980 under the auspices of the Department of Energy. Research will be conducted at the facilities of the Energy & Environmental Science & Technology Directorate, under the direction of F. Fthenakis. BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Apply for Job ID #15059.

POSTDOCTORAL RESEARCH ASSOCIATE (High Temperature Superconductors) - Requires a Ph.D. in physics, material science, engineering or related fields with an interest in carrying out hands-on research. Practical experience in measuring properties of high temperature superconductors (HTS) and/or working with HTS coils is desirable, but not required. Will get an opportunity to advance his/her career in HTS magnet and/or conductor technology. One of the research projects expected to be worked on initially is the radiation resistant HTS magnets for the proposed Facility of Rare Isotope Beams (FRIB). Some of the activities in this area can be found at: www.bnl.gov/magnets/Staff/Gupta/. Under the direction of R. Gupta, Magnet Division. BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Apply for Job ID #15061.

MECHANICAL RESEARCH ENGINEER I/II (P-7/P-9, reposting) - Requires a bachelor's degree in mechanical engineering with a proven track record of mechanical systems design and analysis. Must be a highly motivated individual with a minimum of seven years of progressively responsible related mechanical engineering design work experience and a sound knowledge of current mechanical engineering principles and practices with demonstrated experience in component design, geometric tolerance and dimensioning, analysis, fabrication and manufacturing practices. Requires excellent communication and technical writing skills; experience in using design software tools such as Inventor-11, analysis tools such as ANSYS; and proficiency with MS-Office and MS-Project management tools. This project requires unique one-of-a-kind experimental systems component designs that are not catalog ordered or of mass production quantities and therefore requires an out-of-the-box engineering design capability and the initiative to see them through completion. Will participate as part of a research team to provide expert mechanical engineering design of system level mechanical components for the Long Baseline Neutrino Experiment detector in the Homestake mine in South Dakota. Determines needed resources, prepares specifications, takes part in design reviews, and makes presentations. Builds and evaluates prototypes and models, constructs and tests systems/equipment and proposes upgrades or improvements. Directs the design effort of designers and draftspersons, provides work procedures and directions to technicians, and serves as an advisor and expert on mechanical system design. Will be placed at the P-7 or P-9 level dependent upon depth and breadth of relevant knowledge and skills. Physics Department. Apply for Job ID #14931.

APPLICATIONS ENGINEER (I-6, reposting) - Requires a BS degree in computer science, information technology or a closely related field and a minimum of three years of experience in developing software on a Microsoft platform. Requires excellent communication skills and demonstrable experience with HTML, CSS, and JavaScript. The ability to manipulate photos and create graphics to support business applications using standard tools (such as Adobe Illustrator and

Photoshop), experience with ASP and SQL and to adhere to strict deadlines is also required. Strong problem solving, troubleshooting, and experience with VB.Net and SharePoint are highly desired. Responsibilities include designing, coding, documenting, testing, and supporting data-driven web sites as well as software applications that manage scientific proposals and project management data. Will coordinate with management, support staff, technical personnel, vendors and users to solve most problems independently and will play a key role in design sessions. Will maintain and enhance existing NSLS and NSLS-II systems as well as develop new applications. The ability to handle multiple priorities is essential. National Synchrotron Light Source II. ERAP eligible: \$1000. Apply for Job ID # 14917.

MECHANICAL DESIGN ENGINEER - CHECKER (T-5) - A BS degree in mechanical technology and design is highly desirable or equivalent experience, substantial experience with 3D modeling software and checking. Eight years of experience overall with CAD software designing mechanical components and systems for fabrication. Experience with Pro-E Wildfire and/or AutoCad Inventor is also required. Responsibilities are to perform checking of designs and drawings according to Department standards and Y14.54M -1994. Duties include checking the design for form, fit & function and tolerance analysis of components. Must check the 3D models using appropriate software. Must have knowledge of material properties, component choice, manufacturing/machine shop processes, and welding practices. Must be able to create accurate and detailed 3D system designs as well as mechanical manufacturing drawings to ANSI Y14.5 standards. Work experience with vacuum system components, high voltage/high current systems, RF systems, and/or cryogenics is highly desirable. With engineering and scientific staff support, will release fabrication drawings of components for use in particle accelerators such as magnets, power supplies, RF systems, vacuum chambers, and electronic diagnostics. Collider-Accelerator Department. ERAP eligible: \$1000. Apply for Job ID #15056.

ELECTRO-MECHANICAL TECHNICIAN (T-2/T-3) - NANOPOSITIONING - Under general technical direction, and with considerable latitude for the exercise of initiative and judgment, will perform a wide variety of highly skilled and complex technical assignments in support of the scientific and engineering staff at the nanopositioning lab. Work assignments will be on a project basis, requiring a high degree of proficiency in technical skills and techniques. Must show demonstrated proficiency in the use of tools to assemble parts from rough drawings and familiarity with the use of simple electronics test equipment (multi-meters, digital thermometers, etc.). Regular interaction with BNL Central Shops is expected. Responsibilities include assisting in the technical aspects of the nanopositioning R&D project, maintaining the lab stock of hardware and materials and procurement of supplies. Familiarity with the use of computers, including email, word processing and web browsers. History of dedication and self-motivation, proven ability to work effectively as a team member as well as independently. Will report to the nanopositioning engineer and the group leader at the Nanoprobe Beamline at NSLS-II. Requires an Associate's degree or equivalent technical school degree, a minimum of four years of work experience, knowledge of fabrication tools such as mills, lathes, and hand tools. Experience with vacuum leak testing, including helium mass-spectrometry leak testing, handling cryogenic fluids and pressurized gases and the ability to assemble simple electronics/electrical circuits is highly desirable. National Synchrotron Light Source II. ERAP eligible: \$500. Apply for Job #15049.

TECHNICAL SPECIALIST (T-2) - Requires Associate's degree in a mechanical or related technical field or equivalent capabilities, plus at least four years' relevant work experience in the fabrication, operation and maintenance of mechanical components. Must be proficient with hand tools and experienced in the operation of lathes, milling machines