BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

ACS Honors Norman Sutin

Mort Rosen

Norman Sutin

Norman Sutin, BNL senior chemist, is the 1983 recipient of the American Chemical Society (ACS) Award for Distinguished Service in the Advancement of Inorganic Chemistry, sponsored by Mallinckrodt, Inc. The ACS award is granted in recognition of his extensive contributions to the understanding of ground and excited state electron-transfer reactions.

The announcement was made earlier this week at the ACS meeting in Kansas City, Missouri. Sutin will receive the award in March at the ACS meeting in Seattle, Washington, where he will deliver an address on his scientific work.

Inorganic chemistry traditionally deals with the chemical reactions and properties of almost all of the elements and their compounds. It is a broad area, and one that interfaces with physical, theoretical and organic chemistry, as well as biology and physics. "Electron transfer processes are important in practically all of these areas, in systems ranging in complexity from the highly-organized living cell to relatively simple molecular aggregates and catalysts," said Sutin.

Sutin came to BNL as a research associate in 1956 to study electron exchange reactions, a particularly simple class of electron transfer where electrons "hop" from one molecule to another without producing any net chemical change. Since these processes are most conveniently examined using radioisotopes, Sutin explained, "BNL was one of the few places in the world where this type of work could be done. Pioneering measurements of exchange rates were being made here by Dick Dodson, who recently retired from BNL."

This early work led to Sutin's interest in the broader class of electron transfer reactions, many of which occur in very short times and require specialized techniques for their study. The rapid reaction techniques developed by Sutin and his colleagues in Chemistry's inorganic reaction studies and photochemistry group have become widely used and include a laser heating process which can be used to study reactions down to 10^{-9} of a second. These techniques have been applied to the study of electron transfer reactions in biological systems and have led to a detailed understanding of the electron transfer pathways in cyctochrome c.

About ten years ago, Sutin began investigating electron transfer in excited states of molecules — reactions induced by light. This work was aimed at utilizing solar energy to produce useful chemicals for fuels. As described in the Bulletin ("Molecules Capture Sun," 2/25/77), the focus of this ongoing program is to use sunlight to induce the decomposition of water into hydrogen and oxygen. "The Bulletin article," said Sutin, "described the things we hoped we could do. We have now been fairly successful in achieving some of our goals — particularly the design of systems capable of producing hydrogen in high yields."

A further spinoff from this work was the design of a photogalvanic cell consisting of two platinum electrodes dipping into an aqueous solution containing a ruthenium complex and ferric ions. This cell produces approximately 200 mV upon illumination with visible light, and the mechanism of its action is understood both quantitatively and qualitatively in terms of individual chemical steps and the properties of the reagents used.

Sutin received his undergraduate and graduate education at the University of Cape Town, South Africa, and obtained his Ph.D. from Cambridge University in 1953. He served as an Affiliate at Rockefeller University from 1958 to 1962 and was a Visiting Fellow at the Weizmann Institute, Israel, in 1965. His visiting professorships have included the State University of New York, Stony Brook (1968), Columbia University (1969) and Tel Aviv University, Israel (1973). He was Regents Lecturer at the University of California, Irvine in 1977, and Distinguished Visiting Professor at the University of Texas, Austin, in 1979.

Since 1980, Sutin has edited the new journal, "Comments on Inorganic Chemistry" and, since 1981, he has served on the Committee of Chemical Sciences of the National Research Council.

While Sutin is pleased with the ACS award, he reflected, "This recognition is also a tribute to my collaborators, and I have been very fortunate in that regard over the years."

Cancer Suspects: Guilty Or Not Guilty?

Asbestos, coal tar pitch, 4-Nitrobiphenyl, alpha-Naphthylamine.... The complete list numbers 21 — twenty-one substances that are officially identified as carcinogens by the Occupational Health and Safety Administration (OSHA). An arm of the Department of Labor, OSHA is a regulatory agency that sets industry guidelines for the handling of these substances.

According to Otto White, industrial hygiene group leader in the Safety and Environmental Protection Division, 14 substances were originally identified as cancer-causing by OSHA in the mid-1970s. Since then, individual chemicals have been added to the list, bringing the total to 21.

White points out, however, that about a year and a half ago, the U.S. Environmental Protection Agency and OSHA compiled a list of suspected carcinogens, including the official ones. That list totals 262.

"Think about those numbers," says White. "OSHA now regulates twenty-one substances. For the other two hundred forty one, there are no requirements to treat them in any special way."

The reason White is concerned about this area is that he is principal investigator for the Toxic Material Advisory Program, which operates BNL's Center for Assessment of Chemical and Physical Hazards. The Center is charged by the U.S. Department of Energy to develop internal standards for regulating potentially hazardous substances. Funded by DOE's Division of Operational and Environmental Safety, the Center uses the talents of many: industrial hygienists, environmental health scientists, occupational epidemiologists and data entry people.

White says OSHA has found that it is very time-consuming to develop individual standards for each suspected carcinogen. Definitive scientific evidence takes years to gather, and the rule-making process, complete with hearings, is long and tedious. "That's why OSHA is now proposing to promulgate what they call generic standards," says White. "Once a substance has been identified as a carcinogen, it would be regulated primarily on the sufficiency of the scientific evidence that identifies it as a potential human carcinogen."

By OSHA definition, a substance is considered a carcinogen if it is reported to have produced a malignant tumor or one that metastasized to other parts of the body. But that definition does not address some finer points, says White.

What about potency — how much of one substance is required to cause an effect, compared to another substance? He cites saccharin as an example. Saccharin is not now regulated by OSHA, but it does appear on the list of 262 suspected carcinogens. White says one would have to eat 10 to 20 percent of one's body weight to come up to the amount of saccharin found to cause cancer in laboratory animals.

Doug Humphrey

Otto White

And just how reliable is animal data? White says the Ames test is commonly used as a surrogate in testing for carcinogenicity. Actually, it is a quick and simple test for mutagenicity in bacteria. But since there is a high correlation between mutagens and carcinogens, the test has been used in determining suspected carcinogens. As White points out, however, bacteria are not necessarily similar to humans. Neither are the mammalian laboratory animals on which tests are also carried out.

White says suitable human data are difficult to find because most often, only extreme cases are studied, cases in which small groups of people have been exposed to rather large doses. Also, if a population is exposed to several suspect agents, it is difficult to single out the one causing a particular problem.

Causal relationships are very difficult to establish, according to White. For example, aflatoxin is one of the few natural substances on the long list of suspects. Aflatoxin is produced by a ubiquitous mold, most commonly found on peanuts, beans and corn. The International Agency for Research on Cancer, which has evalu-

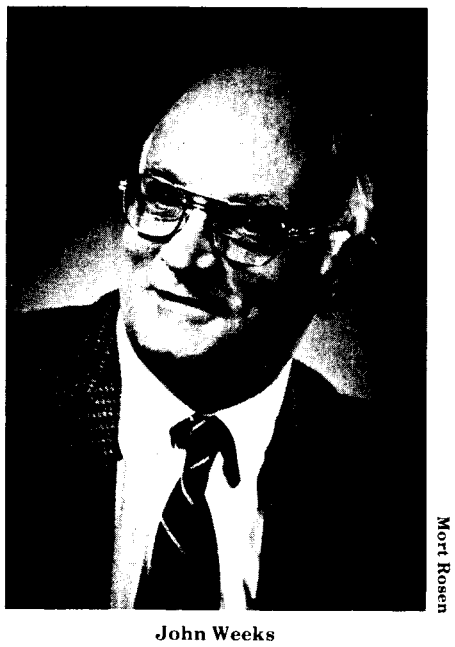
(Continued on page 2)

BNL Lecture
Reactor Corrosion

Nuclear plants have been generating commercial power in the United States for approximately 20 years. During this time, corrosion problems have developed and, as with any new technology, not all were anticipated. In some instances, corrective measures taken for one problem have precipitated another.

Senior Metallurgist John R. Weeks, who has been doing research on corrosion and nuclear reactor materials for the last 30 years, will talk about the corrosion of materials in nuclear power plants in a Brookhaven lecture entitled "Can Hindsight Plus Research Improve Foresight?" His lecture is scheduled for 8 p.m. on Wednesday, September 29, in Berkner Hall.

Weeks heads the Corrosion Science Group of the Department of Nuclear Energy which has assisted the Nuclear Regulatory Commission for the last decade by reviewing corrosion problems, evaluating remedial actions proposed by industry, doing failure analyses and basic research. At the same time, the group has been engaged in research for DOE's Office of Basic Energy Sciences on the mechanisms of stress corrosion cracking.


Mort Rosen

John Weeks

In his lecture, Weeks will describe recent experiences on corrosion and degradation of materials in nuclear power plants, and how research developing out of these experiences is being used to improve future performance. He will note, in particular, corrosion cracking in boiling water reactors, and how this can be minimized at Shoreham; steam generator problems at Three Mile Island, Ginna, and Indian Point, and how other units can

(Continued on page 2)

Doug Humphrey

BNL's director Nicholas Samios (left) confers with Volker Soergel, director of DESY, the high energy physics laboratory located in Hamburg, Germany. Soergel visited Brookhaven recently for an update on the Lab's programs and facilities. DESY is home to PETRA, a positron-electron colliding beam facility.

Some Pension Benefits Excluded From N.Y. State Tax

Effective with the tax year beginning January 1, 1982, employment related pension and annuity income of up to $20,000 a year can be excluded (subtracted from adjusted gross income) for New York State and New York City tax income returns.

This change in the tax law will apply to retired Brookhaven employees who have attained the age of 59-1/2, and are receiving annuity benefits from TIAA-CREF. This law also applies to beneficiaries of BNL employees who are receiving monthly TIAA-CREF annuity benefits.

Individuals who are required to file a declaration of estimated tax for New York City or State should consider this pension benefit exclusion in computing their estimate taxes for 1982.

If you have any questions regarding this tax change call Dick Schonberg, Ext. 2881.

Scholarship Alert

Up to ten 1983 AUI Trustee Scholarships will be awarded to children of regular employees of Brookhaven National Laboratory. Awarded competitively, the scholarships are renewable for up to four years of study toward an academic degree. In addition, up to three scholarships may be awarded to minority group children of employees of BNL and NRAO; eligibility will be determined by applicable federal criteria.

To qualify for a scholarship, the applicant must be a son or daughter of a BNL employee who began regular full-time, or regular eligible part-time employment no later than January 1, 1982, and who is employed by BNL at the time the award is announced. Also eligible are the sons and daughters of retired employees or employees who died when in regular service at the Laboratory. In the case of stepchildren, eligibility will be established if the employee regularly claims the child as a dependent for income tax purposes.

Eligible applicants must be secondary school seniors who will be graduated during the current academic year and entering college by the fall of 1983.

Each scholarship will be in the amount of $1,700 per year and is paid directly to the college.

Applications are due December 1, 1982. For more information, application forms and Critical Data Schedules, contact the Office of Scientific Personnel, 40 Brookhaven Avenue, Ext. 3338.

First Data Bank On Collapsed Structures

What is believed to be the world's first repository for data on collapsed or damaged structures is being established at the University of Maryland, College Park, with the help of a $73,839 grant from the National Science Foundation, according to a news release from NSF.

By 1984, architects and engineers will be able to find information on collapsed or damaged buildings, bridges, roads and dams at the new facility, named the Architecture and Engineering Performance Information Center.

A joint project of the College of Engineering and the School of Architecture, the center will be co-directed by Dr. Donald W. Vannoy, associate professor of civil engineering, and Professor John Loss, associate dean of the School of Architecture.

Previous attempts to document and analyze structural deficiencies have been tied to isolated incidents or handicapped by poor record keeping. The chief advantage of the new center is that architects and engineers soon can benefit from a comprehensive collection of data on many types of failures — from the collapse of the Teton Dam in June 1976 to the collapse of Kansas City's Memorial Arena three year's later.

According to one of the project's co-directors, all structural failures — from something as catastrophic as the Kansas City Hyatt Regency disaster to something as relatively minor as the premature wearing of a rural bridge — have at least one critical point in common from which valuable information can be gathered, analyzed and reported. The center's objective is to learn from these common points to improve structural design and prevent future disasters.

More than 2,000 examples of reported building failures are already stored in the center's data bases, and many more thousands of citations should be available to researchers and government agencies by 1984.

Reactor (Cont'd)

benefit from their experience; and minimizing the problem of corrosion and cracking of bolts and turbine discs to improve reactor safety.

While corrosion problems have caused considerable adverse publicity and operational headaches for the industry, Weeks does not think that the safety of the nuclear plants has been jeopardized. "Research is continually improving our understanding of these problems," he says, "so that I believe future performance can be significantly improved and safety maintained."

John Weeks received his degree in metallurgical engineering from the Colorado School of Mines, an M.S. in Metallurgy and a Ph.D. in Metallurgy from the University of Utah. He joined the staff of BNL's Nuclear Engineering Department in 1953 and is now a senior metallurgist in the Department of Nuclear Energy. He is former Treasurer, L.I. Section, of the American Nuclear Society; past chairman, L.I. chapter, of the American Society for Metals, and a member of the National Association of Corrosion Engineers and the Electrochemical Society.

Reports Available

The following reports are now available to the Laboratory staff and to affiliates of the DOE, AUI and NRC. Others may purchase the reports from the National Technical Information Service, U.S. Dept. of Commerce, 5285 Port Royal Rd., Springfield, VA 22161. Staff members should call Ext. 5068.

NUREG/CR-2417
BNL-NUREG-51481
Identification and Analysis of Human Errors Underlying Pump and Valve Related Events Reported by Nuclear Power Plant Licensees. D.M. Speaker, et al

BNL-51486
The Value of Technical Improvements in Passive Solar Collection-Storage Devices. R.W. Leigh, et al

BNL-51489
Direct Industrial Utilization of Coal. P. Marnell, et al

BNl-51498
Development and Demonstration of a High Efficiency Gas Furnace. Final Report. L.J. Irwin, et al

BNL-51501
Semiannual Report for the Period Apr. 1 — Sept. 30, 1981 of work on:
1) Superconducting Power Transmission System Development.
2) Cable Insulation Development.
E.B. Forsyth, et al

NUREG/CR-2542
BNL-NUREG-51504
Sensitivity Study Using the FRANTIC Code for the Unavailability of a System to the Failure Characteristics of the Components and the Operating Conditons. T. Ginzburg, et al

Cancer Suspects (Cont'd)

ated carcinogenic risk of chemicals to humans for the World Health Organization, has found that no causal relationship has been established between aflatoxin and human cancer.

"No causal relationship... that's the kind of language that quite often exists," says White. "Only a few on the list of 262 suspected carcinogens have actually been shown to cause cancer in humans. Should regulations be established on the basis of animal data or bacterial tests? To what extent should this type of data be used in establishing exposure guidelines for workers?"

White says the guidelines have to be acceptable to be workable. They have to take into account people's perception of the risk. Also, while scientists may agree on how to regulate a suspected human carcinogen, they don't agree on what should be labeled a carcinogen. Still, he says many feel that when a substance has been shown to cause cancer in mammals, it is prudent to treat that substance as though it will cause cancer in humans — hence, the list of 262.

Actually, White says several thousand compounds have been identified by various groups as suspected carcinogens. But in order to be realistic about the matter, some decisions have to be made about which compounds pose a significant health impact.

For example, benzo(a)pyrene exists at low concentrations in the atmosphere from the burning of fossil fuels. "Regulations for this compound must be developed with a knowledge of the environmental burden the population is exposed to ordinarily," says White. "Certainly, the workforce should not be exposed to excessively higher levels, because the higher the level, the higher the risk. On the other hand, to try to regulate extremely low levels would not be cost-effective."

"People need more awareness of these kinds of health issues," he continues. "We need to put them in perspective, to compare them to common risks. It would be useful, for example, to be able to determine if eating two peanut butter sandwiches, which may contain minute quantities of aflatoxin, is equivalent to flying to Denver, which could increase one's exposure to ionizing radiation."

The BNL Center is charged with developing an internal generic carcinogen guideline for the DOE community. In order to provide its staff with additional technical input, a workshop was held at Brookhaven on September 7 and 8. Specific problem areas addressed were definition of regulated carcinogens, potency, risk assessment and other areas of uncertainty. Participants included invited scientists, the Center's advisory panel and staff, and guests from DOE, BNL and Los Alamos Lab. Workshop proceedings will be published.

—Mona S. Rowe

Screen Strain

At the September 29 meeting of the MICOM Users' Group, Dr. Laura Sbarra, Head of Industrial Medicine, and a representative of the Safety and Environmental Protection Division, will lead a discussion on eyestrain as a side effect of VDT use. The meeting is open to everyone and time and location will be published in next week's Bulletin. Those interested in attending who are not on the regular MICOM Users' Group mailing list, should call Jeannette Thiede, Ext. 4548, or Lavina Richter, Ext. 2905.

ANS Meeting

Wilfred Uhl, president of the Long Island Lighting Company will speak at a meeting of the Long Island Section, American Nuclear Society, on Wednesday, September 29. He will discuss the status of the Shoreham Nuclear Power Station with regard to its legal, procedural and technical problems, and the consequences to Long Island of the plant.

The meeting will be held at the Bavarian Inn, beginning with a social hour at 6 p.m., dinner at 7 p.m. Members $10, non-members $11. Call Annamarie Spira at 282-2352 for reservations.

Lecture

Professor Dorothy Denning, Dept. of Computer Sciences, Purdue University, will lecture on "Cryptography Today" on Monday, September 20, at 11 a.m. in the Physics Seminar Room. Her Lecture is sponsored by the Brookhaven Women in Science.

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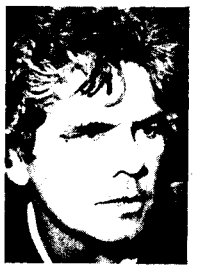
Speaking Out

Reporter: Anita Cohen
Photographer: Doug Humphrey

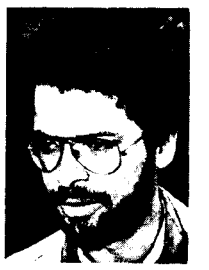
What makes a good supervisor? The books have their opinion, but we were interested in yours. Here are the qualities that some Lab employees look for in a good supervisor.

Bill Rabatin (Plant Eng.) — A person who can communicate well with his people. They can respect him for the interaction between them and not just as someone who spews out orders. Someone who will accept feedback. If you do a certain job and there's a negative aspect to it, you can tell him what it is and he'll accept that and try to work on it.

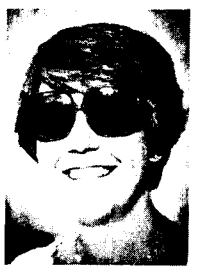


John McNeil (Meteorology) — A good supervisor? That's a good question. One that listens to you — the person you can go in and talk to and present your problems to easily. A person you can feel at ease with.

Robert Carciello (Chemistry) — It's very hard to say. To be a good boss means, I guess, to know what he's doing and to have a lot of faith in the people who are working for him and their ability to do the job.



Benaissa Baggoura (Nuclear Energy) — That's hard to say. I was a beginner [as a postdoctoral candidate] and I took him [my supervisor] as my advisor. I was kind of lost in a new environment and he helped me to establish myself as a working man in my division. I guess this is the main thing.



Judy Giordano (DEE) — Someone who has control over a group and at the same time manifests equality among his employees and shows fairness.

Olga Betancourt (Nuclear Energy) — Someone that's in tune with the employee's feelings, who treats the employee more than just "Here you are, do your job." One of the major things is working with your people -working and caring about them.

Edward der Mateosian (Physics) — A man who knows exactly what he wants the people that work for him to do, who knows how to explain it to them — a man who can give the people who work for him enough leeway and freedom to go ahead and do it.

Marie Hicks (TID) — I think mine is a good supervisor. She's fair, understanding - she's a friend. She knows her job. She's well informed in her job so, therefore, she can be very good with me. She allows me to make decisions on my own.

NYC Train Trip

The Hospitality Committee is planning a group railroad trip to New York City on Wednesday, September 29. Departure will be at 7:55 a.m. from the Patchogue LIRR station. Round-trip fare for adults is $3.50; children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than Thursday, September 23. Please make checks payable to "Brookhaven National Laboratory," and put the date of the trip, your BNL life number and your telephone number on the check. Your tickets will be given to you on the train. Refunds will be made only if cancellations are received by the Monday morning preceding the trip.

Vaudeville Tonight

The 5th annual BERA Vaudeville Show will be held, cabaret style, in the North Room of the Brookhaven Center at 8 p.m. tonight and tomorrow. General admission is $3, and $2 for those over 65 or under 18. A cash bar will be available. This popular event provides a showcase for our talented comedians, singers and dancers, and a delightful evening's entertainment for the whole family.

Arrivals & Departures

Arrivals

Doreen A Hallinan ..... Fiscal
Robert C. Heimerle ..... Accelerator
Gennaro Pasquale ..... Director's Ofc.
Karl J. Smith ..... Chemistry

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:

Dershin Gan ..... Nuclear Energy
Amy Kronenberg ..... Medical
Paul A. Pisoni ..... Contr. & Proc.
Brian W. William ..... Chemistry

Cafeteria Menu

Week Ending September 24, 1982

Monday, September 20		
Cream of tomato soup	(cup)	.65
	(bowl)	.75
Cheese omelet & 1 veg.		1.80
Beef liver & onions w/1 veg.		1.80
Hot Deli: Grilled Reuben		1.90
Tuesday, September 21		
French onion soup	(cup)	.65
	(bowl)	.75
Meatcakes & onions & 1 veg.		1.80
Chicken cacciatore & 1 veg.		1.90
or w/spaghetti		2.10
Hot Deli: BBQ fresh ham	(bread)	1.85
	(roll)	1.95
Wednesday, September 22		
Turkey gumbo soup	(cup)	.65
	(bowl)	.75
Shrimp & fries		2.00
Beef burgundy on egg noodles		1.95
Hot Deli: breaded chicken pattie Parmesan hero		1.95
Thursday, September 23		
Chicken vegetable soup	(cup)	.65
	(bowl)	.75
Turkey chow mein on white rice		1.85
Grilled chopped steak w/mushrooms & onions w/ 1 veg.		1.95
Hot Deli: Chili & cheese dog		1.75
Friday, September 24		
New England clam chowder	(cup)	.65
	(bowl)	.75
Stuffed bell pepper & 1 veg.		1.85
Ham & potato au gratin		1.85
Hot Deli: Breaded fish fillet hero		1.95

IBEW Meeting

Local 2230, IBEW will hold its regular monthly meeting on Sept. 23, at 6 p.m. in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the President's report.

Help In Basic Math

The basic mathematics tutorial sessions are being continued through December, 1982. This course is given for the benefit of employees who intend to begin college technical mathematics courses and need a refresher in basic arithmetic, algebra or geometry. If you are interested, please call June Herbert on Ext. 7631.

Class Change

The first "Stretchersize" class will be held Wednesday evening, September 29, at 5:15 p.m. in the North room of the Center. Please note that this is a change from the date of September 22 reported last week.

Equipment Demo

LeCroy Research Systems will be at Berkner Hall, Room D, on Friday, Sept. 17 (9 a.m. to 4:30 p.m.) to demonstrate new product releases from its HEP Division. Featured will be the new PCOS III Proportional Chamber Operating System, the 256 channel Model 1440 HV power supply and an expanding line of modules for Trigger Processing.

Softball

League I
Championship Game
Ravens 4 — Six Pax 3

Both teams scored 3 runs apiece in the first inning, then for the rest of the game, both clubs excelled on defense. In the top of the seventh the Ravens scored the one deciding run. For the Ravens, Leroy James was 2 for 3 and Ed Taylor had a triple.

Leagues I/II
Playoff Game
Ravens 7 — Ice Pops 6

For the Ravens, Leroy James was 2 for 2 with a home run; he also knocked in the winning run. Stone Wahl was 2 for 2, Greg Mack was 2 for 3.

Leagues I/II Champs
vs.
Leagues III/IV Champs
Ravens 18 — Electric Co. 6

For the Ravens, Herbie Harris, Mac Thomas and Stone Wahl were 4 for 4, Greg Mack was 3 for 4. Herbie, Greg and Bob Rowley all had home runs.

Cooking Exchange

The Cooking Exchange begins another season on Wednesday, September 22 at 12:30 p.m. in the Recreation Building. The topic for the opening meeting will be "Appliances and Gadgets." New committee members Nancy Nagy and Dee Polychronakos will join Bernie Benz, Mary Daum, and Adrienne Usher to demonstrate recipes such as Greek stuffed zucchini, mushrooms and leek bisque, and frozen yogurt. A variety of kitchen gadgets and appliances will be used, from a simple corer to a food processor.

Other topics on the Cooking Exchange 1982-83 Calendar include: I Love Long Island, Food for Kids to Grow On, Breads and Spreads, and Port-a-Party. There is also one date open for requests from club members.

Meetings are held from 12:30 to 2:30 p.m. on the second and fourth Wednesdays of each month at the Recreation Building located in the apartment area. Admission of $1.00 includes samples of foods prepared, coffee or tea, and copies of recipes. Babysitting is provided at 50¢ per child. In addition to its regular meetings, the club sponsors a holiday party in December and an international dinner in June.

The Cooking Exchange is a club open to all BERA members and their immediate families. BERA participation awards are given to members who meet the requirements established by the club's committee.

Food enthusiasts — those of you who enjoy cooking or just eating — are always welcome at the Cooking Exchange. For more information call Mary Daum (744-1898), or Adrienne Usher (289-7658).

PSI News

PSI will hold its monthly meeting on Monday, September 20 in Room C, Berkner Hall. Dinner will be served at 5:15 p.m. and the meeting will begin at 6 p.m. Rhoda Crepea, LILCO, will speak on "Time Management".

English Course Offered On Site

A course entitled, "English as a Second Language," is being offered at the Laboratory to employees and guests and their immediate families. This program is designed for adults who wish instruction in conversational English, as well as in reading and writing the language. There is no charge for this course.

Classes are held in the Recreation Building (#317) on Monday evenings as follows:

Beginners - 7:00 to 8:30
Intermediate - 8:30 to 10:00

If you are interested in attending, please complete the form below and mail to: English Course, Personnel Office, Bldg. 185.

I would like to attend " English as a Second Language."

Beginners ☐
Intermediate ☐

Name:_____ **Ext:** _____

Address:_____

Employee ☐ **Family Member** ☐ **Guest** ☐

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

LABORATORY RECRUITMENT: Opportunities for present Laboratory employees.

1753. MAIL CLERK - Staff Services Division.

1784. MATERIAL HANDLER - Supply and Materiel Division.

1755. TECHNICAL POSITION - Requires AAS degree in engineering science or equivalent and experience in machine shop practices with an emphasis on high precision assembly. Responsibilities include the assembly, test and maintenance of experimental x-ray optical and mechanical instruments. National Synchrotron Light Source Division.

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1756. RESEARCH ENGINEER - Requires a BS/MS in electrical engineering or its equivalent experience. Will be involved in the research, design, and development of data acquisition and experiment control systems for use at the High Flux Beam Reactor and National Synchrotron Light Source. Instrumentation Division.

1757. MEDICAL ASSOCIATE - Requires BS in biology or its equivalent. Experience or training in tissue culture, karyotyping, and cytogenetics highly desirable. Medical Department.

Autos & Auto Supplies

73 VW - convertible, mint cond., no rust! many extras, must sell. 289-4211.

69 BUICK - sports wagon, excel. running cond., new tires, brakes, radials, avail. end of Sept., $600. Ext. 2964.

71 TOYOTA PICKUP - good cond., $900. Al, Ext. 5128.

77 HONDA MOTORCYCLE - Supersport, 400cc, excel. running, like new cond., must sell, $700. 281-2257 after 5.

68 PONTIAC BONNEVILLE - body fair, engine perfect, $350. Bob, 289-1568.

67 TRIUMPH - Tiger, 650cc, excel. cond., stock, rebuilt top end, must sell, best offer. Ext. 5385 or 654-2076.

TIRES - new Breakstone, $70 ea. Cathy, Ext. 4093 or 732-6262 eves.

80 SUZUKI - 1100E, low mi., mint cond., $3,500 firm. 957-3462.

78 MERCURY BOBCAT - 4 cyl., auto., great mi., mint, $3,650. Mike Tesla, 422-1846.

73 PLYMOUTH DUSTER - 6 cyl., auto., p/s, good cond., $850; 66 Plymouth Valiant, 6 cyl., auto., 2 dr., good cond., $350. Rick, 727-7626 after 5:30.

69 ROAD RUNNER ENGINE - 383 cu. in., good for parts or rebuilding, $100. Rick, 727-7626 after 5:30.

71 PINTO PARTS - John, Ext. 4976 or 744-4386.

78 CAMARO LT - 37,000 mi., new blue lacquer, new steel radials, mags, 350 V8, a/c, a/t, tape, $5,200. 473-2473.

80 FIAT STRADA - excel. cond., am/fm stereo, new radials, Rusty Jones undercoating, $3,600. Ext. 2231 or 369-1829.

71 FORD MERCURY COMET - 6 cyl., 95,000 mi., 22 mpg, very good cond., $800. Joseph, Ext. 4789.

73 SUPER BEETLE - 4 spd., radial tires, very good running cond., clean interior, no problems, orig. owner, $1,800. Ext. 4185 or 929-8204.

56 FORD F-100 TRUCK - and parts, 1974 Camaro parts; 1968 GTO body parts, must sell, cheap. Don or Fred Paffrath, 499-1214.

79 HONDA - CM400T, 2,000 mi., garaged, must sell, $1,000. Ext. 7125.

80 KAWASAKI - KL250, good cond., asking $750. Ken, 924-4398 after 6 p.m.

65 PLYMOUTH FURY I - radials, good battery, $125 for quick sale. Rob, 929-8443.

73 BUICK - Centurion, 2 dr., custom series, fully equipped, low mi., $1,450. Ext. 4982.

COACHMAN CAMPER - slide-in, 9 ft., all access., excel. cond., asking $1,200. 727-2092.

80 MAZDA - Sport Pickup, immaculate, stereo w/tape, many extras, good mpg., $5,100. Tim, Ext. 3436 or 727-7741.

71 CHEVY WINDOW VAN - 307 V8 eng., 15+ mpg., runs good, needs body work, $700. John, 732-4068 after 6 p.m.

73 DODGE DART - a/t, p/s, runs very well. Shmid, Ext. 7602 or 4407.

70 DODGE WAGON - 6 cyl., a/t, p/s, runs very well, new rings, $500. Ext. 2897 or 281-7683.

73 HONDA - CB350, new tires, sissy bars, luggage rack, 18,000 mi., very good, $500. Ext. 2897 or 281-7683.

CHEVY TRANSMISSION - 4 sp., bell housing, clutch, shifter & more, $110. Artie, Ext. 2697 or 325-0743.

70 RIVIERA CLASSIC - excel. cond. in/out, rebuilt engine, new exhaust, new brakes all around, new front end parts, p/b, p/s, p/w, a/c, tilt steering, power seats & new plush carpet, asking $2,200. 878-1688 eves.

78 DODGE - Aspen, 6 cyl., a/t, p/s, p/b, a/c, am/fm stereo cassette, $2,700. 399-4972.

PLYMOUTH - Horizon, a/c, a/t, radio, excel. cond., $3,990. Ext. 4169 or 981-5696.

74 VEGA WAGON - 64,000 mi., good cond., a/t, p/s, radial tires, $950. Glenn, 732-3350 days, 758-7353 eves.

72 VOLVO - station wagon, good cond., a/t, radio, $1,800. Ext. 4965 or 289-1834.

67 DODGE DART - good for parts, $60; B78-13 snow tires, never used, $40/pr. Ext. 3606.

78 MAZD GLC - 4 cyl., am/fm, auto. shift, excel. mpg. & cond. 928-6819 after 6 p.m.

TIRES - (4) BR78-13 Uniroyal, fair to good, $30; (2) 7.35-14 snow tires w/rims for 65 Mustang, $20. Phil, 363-2070 eves.

74 OPEL - 1900 wagon, good cond. throughout, 110k mi. Ray, Ext. 7509 or 924-0569.

68 TR 250 - wire wheels, conv., best offer. 929-8475 after 6 p.m.

76 HONDA CIVIC - manual trans., excel. mpg., many new parts, runs excel., leaving, $1,295. 246-6877.

73 CAPRI WHEEL - $35. Miriam, Ext. 4581.

71 TRIUMPH TROPHY - 500cc, very good, all stock classic British machine, $1,000. 567-8811.

78 FORD - F150 pickup, cap, 44,000 mi., H.D. alt., batt., shocks, Trac Loc, 4 sp., O.D., 17 mpg., reg. gas, $4,250. Ext. 2304 or 286-2749.

Boats & Marine Supplies

16' COMBS GARVEY - clam boat, 40 hp Johnson, good cond., extras, $595. 286-0795.

16' SLOOP - O'Day Osprey #469, good cond., plus trailer, $1,500. Ext. 2740.

BOAT COVER - nylon tarpaulin, 28'x16', 14 oz., used one season; Gussler bilge pump, 15 GPM. Bob, Ext. 4527.

SERVICE MANUAL - for Mercruiser, stern drives & marine engines, new edition, $22. Ext. 3256.

19' O'DAY MARINER - sleeps 2, 4 hp Evinrude, galv. trailer, spinnaker, extras, must sell, $4,000. 289-8629.

17' AQUAVEE - plywood/fiberglass, Johnson 40 hp elect., Little Dude trailer, good, $400 firm. Ext. 2897, 281-7683.

SUNFISH - with trailer, end of season price, $500. Ext. 2358 or 286-0497.

19' GRADY - white O/B cruiser, 115 hp Evinrude, sleeps 2, fiberglass hull, $1,400. Ext. 2358 or 286-0497.

19' SAILBOAT - outboard, sails, al. mast, fiberglass over wood. 929-8475 after 6 p.m.

Yard Sales

STONY BROOK - Sept. 18 & 19, 1337 Stony Brook Rd., household items, baby items, tools.

WADING RIVER - Sept. 18 & 19, 10-4, Whitespruce Homes neighborhood, follow signs on 25A and Wading River Manor Rd.

SHOREHAM - multi-family, many useful items, toys, household items, come find your bargain! Sat., Sept. 18, 10-3, follow signs to 33 Briarcliff Rd.

SHOREHAM - multi-family, Sat., Sept. 18, 10-4, 10 Southgate.

Free

DALMATION - female, 2-1/2 yrs. old, spayed, all shots, very active, no young children. 289-7658.

OLD CAR SHOW - St. Andrew's Church, Neighborhood Rd., Mastic Beach, Sunday, Sept. 19, 12-4:30.

GERMAN SHEPHERD - altered, male, 22 mo., black & tan, all shots, John, Ext. 4520.

BLACK KITTENS - call Peanuts, 399-5754.

Miscellaneous

GIRL'S BICYCLE - 20", green, excel. cond., $45. Ext. 4164 or 698-4558.

INDOOR SHUTTERS - wood, 8 sections, 8-1/2"x25-1/2", hinged in pairs, includes all mounting hardware, $15; Water Pik shower massage, hand held, adjustable pulsating head, complete, $15; 36" stainless steel oven hood, no fan, $10. Victor, Ext. 2395.

CANARIES - male & female, assorted colors, $10 and up; Cockatiel, $25. 289-8479 eves.

DARK ROOM EQUIPMENT - colonial dark pine bedroom set, trestle table & chairs; screen house; more. Sheryl, 924-7610.

6-DIAMOND BRIDAL SET - 14K yellow gold, $300; man's 3-diamond matching wedding band, $200. Ext. 2272.

DELUXE GERBIL HABITRAIL - tunnels, 3 areas, extra pieces, $15. Jim, 751-2713.

MOUTON LAMB JACKET - brown, fits sizes 12-16, $75. 475-0144 after 6 p.m.

FURNITURE - & household goods, 6 drawer dresser, $40; single bed, $30, blender, $10. 289-8182.

OLD KITCHEN TABLE - enamel top, with 4 chairs, table has 2 slide-in leaves, good and very sturdy, $45. 878-6637.

COUCH - full size, brown velour, excel. cond., $100; bedroom set, mattress & box spring, dresser, night stands with drawers, $150. Ext. 4100.

COUCH - 90", Italian provincial, sturdy wood frame, cane panels need upholstering, $50. 929-4446.

DOUBLE BED - toaster oven; chairs; pole lamp; dinette set; sofa; wicker chair; recliner; sewing machine; Garrard automatic turntable; cabinet; Waring blender; quartz heater; Tiffany style hanging lamp. 744-6874.

FIRE WOOD - season oak. Robi, 924-3184.

COAL & WOOD STOVE - Sears 50,000 BTU, 1 season old, excel., $225. Dick, Ext. 3499 or 589-9103.

COFFEE TABLE - chrome/glass 24"x48", $60; 2 custom made tub chairs, navy with green print. 473-2473.

COAL STOVE - Hans & Sohn 121.12, 38,000 BTU, used 3 weeks, sells for $725, asking $575; speakers, Avid 105, 3-way acoustic suspension w/2 side firing tweeter, list $750/pair, asking $500. Al, Ext. 2072.

DINETTE KITCHEN SET - Hordor, table & 4 bucket seats, brown leather, woodtone top, $250; black vinyl leather couch with pull out full bed, very good cond., approx. 5-1/2' wide, $60; walnut record cabinet and TV table, $30. Annmarie, 585-5256 after 6 p.m.

STEREO AMPLIFIER - Bogen, excel. cond., like new, 35 watts per channel, $60; upright organ, Magnus, model #535, 42 watts, $60; Siltronix 0-1500 watt meter, 2-50 MHZ, $50, must sell, all pri-ces negotiable. 751-6418.

TABLE SAW - 10", Craftsman; 12" band saw. G. Strickland, Ext. 4091.

BATHTUB - toilet, sink & vanity w/faucet, drains, shower control, tan color, $100. Ext. 2173.

MOVIE PROJECTOR - Bell & Howell, used once; wood kitchen cabinets, part or all, very reasonable; Sansui receiver, 200 watt; Technic direct drive turntable, 2,400 watt; base speakers; solid oak desk, 35"x56" w/file draw; convertible sofa w/double bed, new. 924-4054 after 6 p.m.

FISH TANKS - 10 & 20 gal. w/iron stand & Stow-a-Lite covers, filters, cut glass, etc.; gas grill w/tank, roll cart & redwood shelves, needs top grill, $45; (3) Coleman DBL mantle lanterns, model 220 E/F, never used, $20 ea. George, Ext. 4227 or 751-0894 eves.

CENTREX - Pioneer stereo system, excel. cond., $100. Moshe, Ext. 7602 or 4407.

MICROMET FEEDER - in line water filter for iron, used, $45. 878-0717.

CALCULATOR - Texas TI-59, programmable, also printer PC-100C, $150. 242-4389 or 399-3098.

MAPLE DOUBLE BED - Sealy Posteurpedic box spring, good cond. $50. June, Ext. 7631 or 878-2040 after p.m.

LAWNMOWER - 3 hp, 20" cut, good cond., $50. 878-8847.

SEWING MACHINE - Singer industrial, table, motor, etc. incl., $75. Carl, Ext. 7504.

BEDROOM CHAIR - wicker, $30; oval braided rug, $15; Schwinn boy's 2 wheeler, $15. Judith, 698-3150.

WASHING MACHINE - Sears Kenmore portable; new, still in box, 9'x10' alum. shed; small kitchen table w/2 chairs; bathroom vanity w/br. & white marble sink. Jim, Ext. 3460 or 924-5422.

BELT MASSAGER - $10. Ext. 3319 or 751-7140.

TAPE DECK - 8 trk., under dash mount, 4 flush mount speakers, $40. Ext. 2050.

CASSETTE TAPE DECK - Mitsubishi DT-640, metal tape capability, solenoid controls, $250. Harold, Ext. 2310.

LADIES BIKE - Ross Gran Tour II, light weight, 10 sp., new w/rack & generator, $100; Penn coal stove, 60,000 BTU, also burns wood, 1 season old, must sell, $500 or best offer; 24 cement blocks, 8x8x16, ideal for coal bin, $15; firewood, 12 ft.^{3}. Ext. 3890 or 924-4250.

TV - b/w, works, $25; P.A. speakers S.G., (2) 12" speakers in each, $75/pr. Joe, Ext. 4661.

GOLF CLUBS - Ram, left hand, #2 to 9 irons, $50. 981-5993.

REFRIGERATOR - good working cond., 17 cu. ft., $120. Ext. 4315 or 924-0425.

OSCILLOSCOPE - very old, good cond., $30; misc. band equip.; misc. effects of tool box, cheap. Walt, Ext. 4254.

DOUBLE DESK - 4'x5', seats 2 people, $80. Ext. 7509.

SLIDE PROJECTOR SYSTEM - Airquipt remote, needs bulb, screen & (12) 100 slide reels, asking $60. Jack, Ext. 4411 or 929-8287.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

CENTER MORICHES - Holiday Beach, corner fenced lot, water view, beach rights, club house, this you must see, asking $9,000, price negotiable. Bob, 289-1560.

MEDFORD - Birchwood at Blue Ridge, condominium, 15 min. from Lab, 3 bdrms., many extras, facing golf course, 50's. 698-7213.

WADING RIVER - custom built, 4 bdrm. Colonial, 2 baths, d/r, den, f/p, 2 car garage, full bsmt., private beach, Ext. 7727 or 929-4631.

STONY BROOK VILLAGE NORTH - walk to village, pond, univ., 1/2 acre, very private, gas heat, $67,500. 751-1687 eves.

MILLER PLACE - spacious tri-level ranch w/income apt., 2 bdrm., dinette-kitchen, l/r, bath upstairs; 1 bdrm., kitchen w/dinette, bath, l/r w/picture window, 2 car & storage shed, 3/4 acre, patios, etc. 744-2536 after 6 p.m.

MIDDLE ISLAND - 3 bdrm. Colonial, 2-3/4 wooded acres, l/r, d/r with f/p, 2 baths, w/w new carpet, new appl., apt. in bsmt., assum. mtg., reduced price, Ext. 4660 or 924-4054 after 6 p.m.

For Rent

ROCKY POINT - furnished house, avail. Sept.-June, 4 bdrms., l/r, d/r, huge kitchen, f/p, a/c, 2 baths, laundry room, in-ground pool, walk to private beach, $650 month. 751-4000 or 212-237-9784.

MASTIC PARK - cottage, 2 bdrm., $265 month plus util., security, references. 281-7844.

BAYPORT - 1-1/2 acres, 3 bdrms., bath, l/r, kitchen, 2 car garage, tennis court with lights, oil hot water, October 2-June, $750/month or for sale, $150,000. Ext. 3420 or 472-9159 after 6.

MARCO ISLAND - Condo, 2 bdrm., 2 bath, facing sunset on beach, pool, 10 Hartru Cts. 473-6432.

SHIRLEY - professional wishes to share 3 bdrm. home w/same, f/p, very comfortable. 399-3910 eves.

MILLER PLACE - apt., 1 bdrm., kitchen, bath, l/r, $375/mo. + gas for cooking. 744-2536 after 6 p.m.

MILLER PLACE - apt., 2 bdrm., kitchen, bath, l/r, use of garage in winter months, $400/mo. + util. 744-2536 after 6 p.m.

WADING RIVER - 1 bdrm. apt., quiet location by the water, $325/mo. util. incl., avail. Sept. 10. 929-6543.

Car Pools

ELWOOD - E. Northport area, one driver needed for 5 man pool. Fred, Ext. 4407.

STONY BROOK/STRATHMORE - interested in joining existing car pool or forming new one. R. Jaung, Ext. 7912.

MASSAPEQUA/FARMINGDALE - & vicinity, leave from near Ex. 32, Southern State Parkway. Plotkin, Ext. 4717.

PATCHOGUE - on-time car pool, operating 10 yrs., opening for paying rider now, additional in October. Alyce, Ext. 2902.

SETAUKET - ride needed infrequently to and from Lab, will pay for gas. Walt, Ext. 4254.

Wanted

HOUSEMATES - 4 bdrm. ranch, Mastic Beach, 8 mi. to Lab, $125/month plus 1/4 util. Bob, 399-3609.

STUDENT DESK - and/or chest end table, maple. Ext. 2543.

HELP WITH YARD CLEAN-UP - requires small pickup truck. Ext. 2740 or 286-0008 after 6 p.m.

VENDORS - for church flea market, Sept. 18th, raindate 25th, exit 70, Manorville, $ space. 878-6637 or 727-1067.

CAR SKIRTS - for 1970 Riviera, any color. Ext. 4303.

INNER TUBE - for rent or sale. Ext. 7921.

SEAMSTRESS - for routine mending, hems, simple alterations, several interested parties, Ext. 3665.

WORKING WOMEN - local business & professional women's club accepting new members, orientation mtg. Sept. 28. Alyce, Ext. 2902.

CAR SKIRTS - for 1970 Riviera, any color. Ext. 4303.

VENDORS WANTED - old car show & flea market, Sunday, Sept. 19. Judy, Ext. 3496, Tues. & Thurs. or 281-4472.

HOUSE TO BUY - or rent, Brookhaven/Bellport area. Joanne, 286-0745 after 6 p.m.

Services

Services are listed as a courtey to BNL employees. They are neither screened nor recommended by the Bulletin.

HOUSE PAINTING - garages, etc., interior/exterior, experienced, refs. upon request. Mike, 286-1378.

TUTORING - elementary level, all subjects, experienced, certified teacher, my home or yours, reasonable. 744-1334.

LIMO SERVICE LUXURY - chauffered for proms, weddings, airport, night out. Roy, Ext. 4664 or 744-8779.

STEVEN'S VIDEO PRODUCTION - service with a personal touch, weddings, sweet 16, Bar Mitzvahs, sporting events, etc. 864-5132.

PLUMBING AND HEATING - Lab discount. John, 654-8189.

FIRESIDE CHIMNEY SWEEPS - fireplaces, wood, coal & oil flues, dustless removal, Lab discount, insured. Bill, 584-6425.

CHILD CARE - my home in Mastic, any age, any time, Monday through Friday. 399-0516.

CHILD CARE - my home in Bellport, lots of TLC, any age, infants welcome. 286-2435.

ASPHALT PAVING - and sealing. Bob, 475-4382.

CHILD CARE - in my home, full/part time, TLC, any age. 744-6910.

CHILD CARE - near Lab, in my home, love the little ones. Kathy, 929-8809.

CLEANING SERVICE - office, home, apartment, work by owners, free estimates, references, Ray, 732-4885 eves.

VERTICAL BLINDS - mini blinds, wovenwood shades, discount prices, compl. installation, shop-at-home service. Tony, 928-9241.

DOG BOARDING - private kennel, indiv. attention, inside pens, outside runs, $ per day. Betty, 924-6981.

OIL BURNER SERVICE - 15 yrs. exp., compl. vacuum of fire box, new nozzle, new filter, 24 hr. service. 286-8622.

DISC JOCKEY - available for weddings, school dances, private parties, fire depts., etc., all styles, continuous music, fantastic light show. 286-8622.

CHILD CARE - in loving home, South Manorville, Mon.-Fri. Dee, 878-1060 for interview.

EXTERMINATING - licensed men, all phases of pest control, free estimates, Lab discount. 281-5445.

TRUCK FOR HIRE - moving, clearing & other misc. jobs. Lab discount 281-5445

WATERPROOFING - experienced, all work guaranteed, free estimates, Lab discount 281-5445

KAYAK LESSONS - basic & wildlife trips, physical fitness tours on bays & creeks. Tim, 281-7873.

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.