BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

BNL and AUI Set to Celebrate the First 40 Years

Forty-one years ago, on September 9, 1946, the Executive Committee of the two-month-old corporation, Associated Universities, Inc. (AUI), voted unanimously to name its future laboratory Brookhaven National Laboratory.

The contract creating BNL was approved by the federal government on January 31, 1947, making this the Laboratory's 40th anniversary year. Thus it seems fitting to begin the main celebrations marking BNL's 40th on the 41st anniversary of the date on which the names of AUI and BNL were first joined.

Accordingly, on September 9, 10 and 11, BNL and AUI will host a 40th Anniversary Celebration, which will feature many events open to the entire Laboratory population (see program). These will include an anniversary symposium at which six distinquished scientists will survey developments in their fields; the dedication of the Alternating Gradient Synchrotron (AGS) complex in memory of Leland J. Haworth, BNL's second Director; and a ground-breaking ceremony for the AGS Accumulator-Booster.

Anniversary Symposium

The six symposium speakers will discuss developments in their respective fields: those that have taken place over the past 40 years and those that might be anticipated during the next 40 years . . . and beyond.

The speakers and their topics will be:

- Robert J. Birgeneau, Massachusetts Institute of Technology, "Diffraction, Disorder and Dimensionality."
- Sheldon L. Glashow, Harvard University, "New Physics at Accessible Energies."
- T.D. Lee, Columbia University, "Symmetry Principles and Particle Physics."
- Frederic M. Richards, Yale University, "Approaches Through Physics, Chemistry and Biology to the Problem of Protein Folding."
- Henry Taube, Stanford University, "Understanding Electron Transfer in Chemical Reactions: Brookhaven Contributions."
- Robert R. Wilson, Cornell University, "Accelerators: The Past Is Prologue?"

Dedication: Leland J. Haworth

As Laboratory Director from 1948 to 1961, Leland J. Haworth is credited with bringing the "big machines" to Brookhaven. One of those was the AGS, a synchrotron that could accelerate protons up to the previously unattainable energy of 33 billion electron volts (GeV), thanks to the principle of alternating gradient focusing, or strong focusing, discovered at BNL in 1952. On July 29, 1960, the AGS first reached its design energy, opening a new window for viewing the subatomic world of particle physics.

Other "big machines" that were designed and put into operation under Haworth's direction were the Brookhaven Graphite Research Reactor, the world's first nuclear reactor designed for peacetime research, and the Cosmotron, the predecessor to the AGS and the world's first particle accelerator to achieve proton energies of more than 1 GeV.

Leland J. Haworth, BNL Director, 1948-1961.

Leland J. Haworth was born on July 11, 1904. He attended Indiana University, where he received an A.B. in 1925 and an A.M. in 1926, both in physics. His Ph.D. in physics was earned at the University of Wisconsin in 1931.

After periods with the University of Wisconsin and the Massachusetts Institute of Technology (MIT), Haworth joined the Physics Department of the University of Illinois, becoming a full professor in 1944. During World War II, he was granted a leave of absence to join the staff of the MIT Radiation Laboratory, which was engaged in microwave radar development.

In 1947, Haworth came to the newly created Brookhaven National Laboratory as Assistant Director. He was appointed Acting Director in July of 1948 and Director in October of that year.

While at Brookhaven, he also served as Vice President of Associated Universities, Inc. (AUI), from 1951 to 1960, and President from 1960 to 1961.

Haworth left BNL and AUI in 1961 when he was appointed by President John F. Kennedy to the U.S. Atomic Energy Commission. In 1963, the President then asked him to become Director of the National Science Foundation. After six years at the helm of that institution, Haworth returned to AUI as Special Assistant to the President and Special Consultant to the Director of Brookhaven.

Leland J. Haworth officially retired in 1975, although he maintained a close relationship with BNL and AUI until his death on March 5, 1979.

Ground Breaking: AGS Accumulator-Booster

Though quite small as today's accelerators go, when completed and coupled to the AGS, the Accumulator-Booster will assume a power disproportionate to its size: It will increase every aspect of the physics program at the AGS many times over, and it is an important part of the Laboratory's long-range plan to become the world's center for the study of relativistic heavy ions.

Specifically, the Accumulator-Booster will:

- Increase proton intensity, by a factor of four, for the AGS high energy physics program. The Accumulator-Booster will literally give the particles a boost before they go into the AGS, overcoming the intensity limits due to space-charge effects at injection.
- Increase, by a factor of 20, the intensity of polarized protons for AGS experiments with protons that have their spin vector aligned in the same direction. The AGS Linac now generates particles in bursts, or pulses, which are injected into the AGS individually. Once the Accumulator-Booster is in place, polarized protons will circulate and accumulate there until 20 pulses have come from the Linac and can be injected into the AGS together.
- Allow the AGS to accelerate all the heavy ion species that the Tandem Van de Graaff accelerator can generate. While the AGS is already accelerating ions as heavy as silicon, atomic mass 28, the Accumulator-Booster's very high vacuum will permit the acceleration of ion species as massive as gold (197) and uranium (238).

The AGS Accumulator-Booster was established as a construction project in fiscal year 1986. To date, three dipole magnet prototypes have been tested and their yoke laminations ordered; the detailed design of the accelerator has been completed; and the conceptual design of the computer control system is under way.

The ceremony on September 11 will initiate the actual construction of the tunnel and of the conventional civil engineering support facilities. The accelerator is scheduled for completion in fiscal year 1991, at a total cost of about $32 million.

Program: AUI/BNL 40th Anniversary Celebration

Wednesday, September 9

- **8:00 p.m.** — **Concert: Stony Brook Trio (Berkner Hall)**

Thursday, September 10

- **9:00 - 11:40 a.m.** — **40th Anniversary Symposium - Session 1 (Berkner Hall)**
  - 9:00 - 9:15 a.m. — Welcome and Introduction
    Robert Hughes, AUI President
    Nicholas Samios, BNL Director
  - 9:15 - 9:30 a.m. — Reflections and Introduction
    Eugene Cronkite, Medical Department Chairman, 1967-1979
  - 9:30 - 10:20 a.m. — Frederic Richards — "Approaches Through Physics, Chemistry and Biology to the Problem of Protein Folding"
  - 10:20 - 10:50 a.m. — Break
  - 10:50 - 11:40 a.m. — Henry Taube — "Understanding Electron Transfer in Chemical Reactions: Brookhaven Contributions"
- **1:30 - 2:15 p.m.** — **Dedication of the Alternating Gradient Synchrotron Complex to Leland J. Haworth (Main Entry, Building 911)**
- **2:45 - 5:00 p.m.** — **40th Anniversary Symposium - Session 2 (Berkner Hall)**
  - 2:45 - 3:00 p.m. — Reflections and Introduction
    Maurice Goldhaber, BNL Director, 1961-1973
  - 3:00 - 3:50 p.m. — T.D. Lee — "Symmetry Principles and Particle Physics"
  - 3:50 - 4:10 p.m. — Break
  - 4:10 - 5:00 p.m. — Robert Birgeneau — "Diffraction, Disorder and Dimensionality"

Friday, September 11

- **9:00 - 11:20 a.m.** — **40th Anniversary Symposium - Session 3 (Berkner Hall)**
  - 9:00 - 9:15 a.m. — Reflections and Introduction
    John Blewett, BNL Senior Physicist, 1947-1975
  - 9:15 - 10:05 a.m. — Robert Wilson — "Accelerators: The Past Is Prologue?"
  - 10:05 - 10:30 a.m. — Break
  - 10:30 - 11:20 a.m. — Sheldon Glashow — "New Physics at Accessible Energies"
- **12:00 - 1:15 p.m.** — **Ground-Breaking Ceremony — AGS Accumulator-Booster (AGS Booster Site)**

BROOKHAVEN NATIONAL LABORATORY
— ASSOCIATED UNIVERSITIES, INC. —

THE FIRST FORTY YEARS

Second Chasman Scholar Presented With $1,000

The second annual $1,000 Renate W. Chasman Scholarship for Women was presented to Patricia Beach of Ronkonkoma on Thursday, August 20, by Brookhaven Women in Science (WIS).

WIS established the scholarship to encourage Long Island women to resume their formal education in scientific or technical fields. Women residing in Nassau or Suffolk Counties, who are studying at the junior undergraduate level or higher and who are enrolled at least half-time in a degree-granting program, are eligible to apply for the one-time award. Each year, a Chasman Scholar is selected by committee independent of WIS.

As the 1987 Chasman Scholar, Beach was selected from among a field of 20 candidates. A homemaker, wife and mother of two children, Beach is a junior studying mathematics part-time at the State University of New York at Stony Brook. She is scheduled to complete her bachelor's degree and obtain her teaching certificate in June 1989.

Using her education, Beach hopes to teach mathematics to high school students and, as she explains, "to inspire more students to take more mathematics, so they can go into science and technical college courses and careers if they wish."

After completing an associate's degree in liberal arts at Nassau Community College, Beach was enrolled at Queens College when her education in home economics and teaching was interrupted in 1976 by the birth of her first child. "It was easy to stop when I had Brian because I wasn't being challenged by home economics," says Beach.

"Math had been my favorite subject in high school, but I had won an award in home economics, so I majored in that subject in college," continues Beach. "I was never afraid of studying math, but the thought of teaching math to a bunch of high school boys was intimidating to me at the time —teaching a group of girls how to sew and cook seemed much safer. Now, it's no threat, but a challenge I look forward to."

Mort Rosen

The 1987 Chasman Scholar, (second from right) Patricia Beach, with members of the Women in Science Scholarship Committee: (from left) Gail Williams, Mary Phillips, Mary Kinsley, Scholarship Committee Chairwoman Eva Bozoki, Ruth Kempf and Patricia Webster.

After her second child, Bridget, turned four, Beach was encouraged by her husband Walter to return to school, but to study her first love: math. So in September 1983, she matriculated at Suffolk County Community College for mathematics, and then enrolled at Stony Brook in 1985.

Back in the classroom, Beach realized, "Too many people get lost in mathematics too early because of poor teaching. Someone may be a brilliant mathematician, but a lousy teacher —a teacher who doesn't listen to her students' questions and hasn't learned how to explain fundamental concepts. As a result, many students don't get a good background, so they develop a mental block against the subject."

As a mathematics teacher, Beach wishes to help students overcome their math anxiety and poor math background, and to encourage their undertaking "a more challenging course of study."

"We hope this Chasman Scholarship will encourage Pat's study of mathematics and her desire to encourage future generations of scientists, mathematicians and engineers," says Louise Hanson, WIS Coordinator, who, with Scholarship Committee Chairwoman Eva Bozoki, made the presentation to Beach.

Adds Bozoki, "In returning to college to study mathematics, Pat is challenging herself and has accepted the challenge that Renate Chasman made to all women." In a 1971 interview with the Bulletin, Chasman encouraged women who are no longer satisfied only with working in the home and raising children to "do something about it."

Renate Chasman (1932-77) received a Ph.D. in experimental nuclear physics from Hebrew University, Jerusalem. She came to BNL in 1963, after a three-year post-doctoral appointment at Columbia University. At the Lab, she was the chief theorist in the groups that designed and built the 200-MeV linear accelerator injector for the Alternating Gradient Synchrotron.

Chasman is most noted for her designing, in collaboration with the late Ken Green, an electron storage ring optimized for synchrotron radiation production. The Chasman-Green lattice, as it is called, is the basis for the two storage rings at the National Synchrotron Light Source and other synchrotrons around the world.

The second $1,000 scholarship was made possible by corporate and individual contributions and fund-raising events held at BNL. Tax-deductible contributions may be made to the Chasman Scholarship Fund, P.O. Box 183, Upton, New York 11973.

— Marsha Belford

Last Summer Tour Will Be on Sunday

Have you been meaning to take a tour of BNL this summer, but put it off because there's always one next week? Well, that's not true any longer: The last Summer Sunday tour for 1987 will be this Sunday, August 30.

The public is invited to arrive at the Lab any time between 10 a.m. and 3 p.m. to participate in the Tour Program, which includes "Quest!" — an audiovisual presentation telling the story of Brookhaven; a guided walking tour of the three-story science museum known as the Exhibit Center; the Camp Upton Historical Collection at the Exhibit Center; and an optional tour of the energy-efficient, prefabricated Danish House. The complete program takes about 2½ hours. For more information, call the Tour Program Office, Ext. 4049.

Service Awards

The following employees received service awards during the month of August:

Forty Years

Walter C. Buckes ..... Sup. & Mat'l.
Gerald Strickland ..... App. Science

Thirty Years

Leo J. Casey ..... Photo. & G. Arts
Paul G. Edwards ..... Saf. & Env. Prot.
Frank J. Thornhill ..... AGS

Twenty-five Years

Morris Beller ..... App. Science
Anthony F. LoMonte ..... Medical
Victoria L. McLane ..... Nuc. Energy
James G. Neckerman ..... Plant Eng.
Serafin R. Vargas .... Saf. & Env. Prot.

Twenty Years

Hans F. Abendroth ..... Physics
Roger E. Hallinan ..... App. Math
Paula E. Hughes ..... AGS
Frank Mignano ..... Plant Eng.
Charles A. Nielson ..... Light Source
Edwin Taylor ..... App. Math
William F. Taylor ..... Nuc. Energy

Ten Years

Peter DeToll ..... Light Source
Eugene M. Ferreri ..... App. Science
John J. Hauser ..... Budget
Marilyn Johnson ..... Plant Eng.
Harold G. Kirk ..... Physics
Elizabeth A. McBreen ..... Physics
Louisa Morrison ..... Saf. & Env. Prot.
John Nagy ..... App. Science
Richard R. Savoy ..... Cent. Shops
Peter J. Schnitzenbaumer .... Physics
William L. Sherry ..... Budget
Gene A. Sorensen ..... Cent. Shops

Patent Awarded

Toshifumi Sugama, Lawrence Kukacka and **Neal Carciello** of the Department of Applied Science have been awarded U.S. Patent No. 4,659,395 for inventing a pre-coat and a laminate, and a method for depositing them chemically onto carbon steel and non-ferrous metals such as zinc and aluminum.

The crystalline conversion precoating is made of a zinc phosphate solution modified with a high molecular weight polyelectrolite, which was found to improve the flexibility and ductility of the material. The metal substrate is cleaned and dried before the coating is applied and baked on. The result is a uniform array of plasticized fine, dense crystals that bind particularly strongly to both the substrate and the laminate polymeric topcoat. Because of this adhesive force, a thicker layer of laminate can be used, which gives added protection.

The advantage of this invention is that it is stronger, more flexible and more ductile than any such crystal conversion coating previously available. This makes it especially appropriate, for example, for protecting cars from rust. Samples are already being sent to firms specializing in metal coatings, which are eager to test the new invention for industrial and military use.

All film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

Safety on Course

Summer Student Paul Yu-Yang pulls back the carrier on a motor vehicle crash simulator, which he built this summer while working in the Department of Applied Science's Injury and Prevention and Analysis Group, under epidemiologist Jerome Barancik (left).

Also working with Barancik were two high school teachers, participants in a National Science Foundation (NSF) program that brings high school teachers into national laboratories as well as private industry. Marty Schittman (second from left), who designed the crash simulator, is a physics and computer programing teacher at Huntington High School. Michel Krivosta (right) is a chemistry and physics teacher from Earl L. Vandermeulen High School, Port Jefferson.

The teachers and Barancik are studying elementary through high school curricula, looking for places where safety and injury prevention instructional programs can be inserted and evaluated.

As a result of their efforts, the bench top simulator, which was developed with common and inexpensive materials, may be deployed as an instructional aid in schools, demonstrating principles of physics, as well as the human damage that can result from speeding and drunk driving. A goal of the program is to build life-safety instruction into standard science curricula.

Yu-Yang, a student at the University of California, Berkeley, was one of 68 students in this year's Summer Student program administered by Donald Metz (third from left), Head of the Office of Educational Programs. Metz also directs the NSF program at BNL.

— Ric Lewit

Mort Rosen

BNL's Fabulous Forty

Last Week to Buy Picnic Tickets

Miss Piggy is going to BNL's 40th Anniversary Picnic on Saturday, September 19. How about you?

If you haven't yet bought your picnic tickets because "there's plenty of time" — guess again! Time is running out — the deadline for buying picnic tickets is next Friday, September 4.

So get out there and buy those tickets for you and your group today — from Miss Piggy. The porcine princess will be selling tickets today at the Cafeteria, from noon to 1 p.m., and at Barclays Bank, from 11 a.m. to noon and from 1 to 2 p.m.

If you miss the vivacious Miss Piggy, you can still buy your tickets all next week at the BERA Sales Office, weekdays from 9 a.m. to 2 p.m., or from: Renée Flack, Bldg. 185A; Blanche Laskee, Bldg. 185; Liz Mogavero, Bldg. 510A; Betty Pergan, Bldg. 179A; and Rosalie Piccione, Bldg. 355.

—photos by Alex Reben

Once you've gotten your tickets to BNL's 40th Anniversary Picnic, you can look forward to enjoying yourself as much as these youngsters did at BNL's 35th Anniversary celebration in 1982.

Swimming Pool

Summer season tickets are valid through the extended date of Friday, September 4. For one week only, August 31 through September 4, the pool will be open as follows:

11 a.m. - 1:30 p.m.	employees only
1:30 p.m. - 2 p.m.	reserved for speed swimming and training
2 p.m. - 9:30 p.m.	employees, families & guests*

The pool will be closed Labor Day weekend, Saturday, Sunday and Monday, September 5, 6 and 7.

New Season

Tickets for a new four-month season will be sold at the pool starting Tuesday, September 8.

Fees:

Season Tickets (fees not prorated)

Individual Membership	$30.00
Family Membership **	$40.00

Daily Admissions:

employee	$1.50
family member**	$1.50
guest*	$2.00

** Defined as family members living in the employee's household.

Schedule:

Monday through Friday

11 a.m. - 1:30 p.m.	employees only
1:30 p.m. - 2 p.m.	reserved for speed swimming and training
5 p.m. - 9:30 p.m.	employees, families & guests*

Saturday and Sunday

1 p.m. - 6 p.m.	employees, families & guests*

*** Guest Ruling**

One guest per employee is permitted without prior arrangements. For more guests, up to a maximum of five at any one time, advance arrangements must be made at the Recreation Office in Personnel. *This rule pertains to all recreation facilities.*

Hospitality News

Ikebana, the Japanese art of flower arranging, will be demonstrated by Fumiko Mitfuda, the guest speaker at the next Hospitality Committee get-together on Tuesday, September 1, at 9:30 a.m., at the Brookhaven Center.

Spouses of Laboratory employees and visitors are welcome. Coffee, tea and danish will be served. Please come and bring the children. Babysitting will be provided free of charge.

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Tickets Going on Sale For Metropolitan Opera

On Wednesday, September 9, Family Circle tickets for certain performances of the 1987-88 Metropolitan Opera season will go on sale at the BERA Sales Office in Berkner Hall. Office hours are from 9 a.m. to 2 p.m. Employees may purchase as many *pairs* of tickets as they wish. All sales will be final; no refunds or exchanges.

Ticket Prices:

Tuesday and Friday evenings	$16.50
Saturday evening	$17.50

Schedule:

Date	Opera
Tuesday, September 22	*Manon*
Saturday, October 3	*Otello*
Friday, October 16	*Tosca*
Saturday, October 17	*Ariadne auf Naxos*
Friday, October 30	*La Boheme*
Tuesday, November 10	*La Boheme*
Saturday, November 14	*Die Walkure*
Friday, November 27	*Il Trovatore*
Tuesday, December 1	*Il Trovatore*
Friday, December 4	*Die Fledermaus*
Saturday, December 19	*Die Fledermaus*
Tuesday, December 22	*La Traviata*
Friday, January 1	*La Traviata*
Saturday, January 9	*Das Rheingold*
Tuesday, January 26	*Pelleas et Melisande*
Friday, February 5	*Turandot*
Saturday, February 6	*La Boheme*
Friday, February 26	*Khovanshchina*
Saturday, February 27	*L'Elisir d'Amore*
Saturday, March 5	*Turandot*
Tuesday, March 8	*Ariadne auf Naxos*
Friday, March 18	*Cosi fan Tutte*
Tuesday, March 22	*Cosi fan Tutte*
Friday, April 8	*Werther*
Saturday, April 16	*Lulu*

Soccer Club

Pick-up soccer games are now being played on Mondays after 5 p.m., and on Wednesdays and Fridays at noon at the BERA Recreation Park field. For more information, call Enrique Abola, Ext. 4383.

Touch Football

The BNL Touch Football League Committee announces that play will begin sometime in September and extend to the end of October. Games will be played at the BERA Recreation Park on Tuesday and Thursday afternoons at 5:20 p.m.

All interested teams may pick up entry blanks and game rules at the BERA Sales Office weekdays between 9 a.m. and 2 p.m. New teams are welcome. Individuals who would like to play but are not included on a team roster can sign up for the players' pool.

Since blocking is not allowed and body contact is limited, players of all ages can take part with little fear of being injured.

Call Ed Taylor, League Chairman, on Ext. 7589, for further information.

Bowling

Bowlers are still needed to complete the various leagues. If you are interested in bowling, please contact either Maria Apelskog, Ext. 3138, or Charlie Bohnenblusch, Ext. 4758.

Call for BNL Crafts

All BERA members including employees, immediate family members 16 years of age and over and retired employees are invited to contribute their work to the 4th BERA Members' Craft Exhibit. The exhibit will open on Monday, October 12, from 4:45 to 7 p.m., in Berkner Hall, and then run from October 13 through 16, from 11:30 a.m. to 1:30 p.m.

The BERA Art Committee hopes that exhibitors will demonstrate their crafts at least one day of the exhibit, though exhibitors may be requested to limit their contributions because of limited space. Suggested crafts include quilting, original needlework, stained glass, metalsmithing, jewelry, inlaid work of tile or wood, weaving, pottery or designs in natural materials.

To ready a printed catalogue for the opening, the Art Committee requests that two forms be completed for each work you intend to exhibit. Forms should be returned to the BERA Sales Office in Berkner Hall no later than October 1. Additional forms may be picked up at the BERA Sales Office if needed.

Works should be delivered to Room B, Berkner Hall, on Monday, October 12, between 8:30 a.m. and 12:30 p.m., and picked up there on Friday, October 16, between 1:30 and 3 p.m. The Committee cannot be responsible for works left after that time. For more information, contact Clare Sheppard, Bldg. 510A, Ext. 3946.

Return to BERA Sales Office, Berkner Hall, by October 1.

Name _____ Phone _____

Craft _____

Space needed _____

Vertical or horizontal; table or floor _____

Laboratory contact & phone _____

Arrivals & Departures

Arrivals

Cyndy A. Chisare ..... P&GA
Robert L. Colichio ..... S&EP
John P. Cozzolino ..... Accel. Dev.
Gary Herbst ..... AGS
James J. Savino ..... Accel. Dev.
Youwen Xu ..... DAS

Departures

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

Robert F. Benenati ..... DNE
Eric J. Bernholz ..... P&GA
Anthony B. Boemio ..... DAS
Gyula Faigel ..... NSLS
Steven T. Kenyon ..... S&EP
Luis A. Oquendo ..... Cent. Shops
Alexander Wolf ..... Physics

Cafeteria Menu

Week of August 31

Monday, August 31

Thick beef noodle soup	(cup)	.75
	(bowl)	.95
Veal Parmesan w/1 veg.		2.85
Turkey noodle casserole w/1 veg.		2.85
Garden vegetable plate (lite-weight)		2.25
Hot deli: Turkey	(bread)	2.55
	(roll)	2.65
	(hero)	2.75

Tuesday, September 1

Bean soup	(cup)	.75
	(bowl)	.95
Stuffed pork chop w/1 veg.		2.95
Batter-coated fish w/1 veg.		2.85
Croissant w/beef & swiss (lite-weight)		2.25
Hot deli: Monte Cristo		2.65

Wednesday, September 2

Chicken gumbo	(cup)	.75
	(bowl)	.95
Beef stew w/biscuit		2.85
Tacos		.85/ea.
Assorted cheeses & fruit plate (lite-weight)		2.25
Hot Deli: Grilled Reuben		2.45

Thursday, September 3

Tomato beef vegetable soup	(cup)	.75
	(bowl)	.95
Beef & cheddar pie w/1 veg.		2.85
Broccoli & cheese quiche		2.85
Hot Deli: French bread pizza w/sausage		2.65

Friday, September 4

New England clam chowder	(cup)	.75
	(bowl)	.95
Shrimp Creole w/1 veg.		2.95
Meat loaf w/1 veg.		2.85
Melon fruit plate (lite-weight)		
Hot Deli: Chili dogs		2.45

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 and/or appropriate bargaining unit, 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 Employment Manager, Ext. 2882.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

2658. LABORER - Plant Engineering Division.

2659. TOOL & INSTRUMENT MAKER, GROUP LEADER - Light Machine Shop, Central Shops Division.

2660. MASTER METAL WORKER, GROUP LEADER - Central Shops Division.

2661. CLERICAL POSITION - Requires good knowledge of office practices including IPAP/J-CARS data entry system. Previous experience involving A/P and billing desired. Familiarity with word processing helpful. Additional duties to include distribution of mail, typing and telephones. Accelerator Development Department.

2662. CLERICAL POSITION - Requires excellent record keeping and computation skills. Will prepare and process vouchers for payment, mail vendors' checks and maintain data regarding payments. Experience with typing and use of calculator required. Fiscal Division.

2663. SECRETARIAL POSITION - Requires excellent secretarial and communication skills and an extensive knowledge of BNL policies and procedures. Will perform diverse administrative and technical secretarial duties for an Associate Department Chairman and the Surface Physics Group. Under minimum supervision, will type technical manuscripts (on Micom word processor), arrange domestic and foreign travel, and maintain group files. Knowledge of shorthand useful. Physics Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

2664. ENGINEERING POSITION - Requires BS/MSME and a minimum of two years' experience in some of the following areas: mechanical design and shop fabrication practices, vacuum system design, component design involving high electrical current/voltage, instrumentation and mechanism design. Accelerator Development Department.

2665. CABINETMAKER A - Under minimum supervision lays out, constructs, modifies and maintains furniture, laboratory equipment and buildings and component parts. Works with wood, wood substitutes and combination materials and flooring, roofing and wall materials. Uses hand, portable and fixed tools common to building construction and cabinet making trade. Plant Engineering Division.

2666. HEAVY EQUIPMENT MECHANIC OPERATOR - Requires demonstrated ability to maintain, repair and operate all material handling, earthmoving, road and ground maintenance and related equipment. Candidate must have a valid Class 1 license. Plant Engineering Division.

2667. TECHNICAL POSITION - Requires AAS in mechanical technology or equivalent and a minimum of 5 years' experience in mechanical measurements and assembly of precision mechanical mechanisms. Must be able to work from blueprints and sketches and be familiar with basic shop practices, soldering and brazing. Experience with clean room procedures and techniques a plus. Accelerator Development Department.

2668. TECHNICAL POSITION - Requires AAS in electromechanical technology or equivalent and a minimum of three years' experience in the construction, testing, and operation of the ultra-high vacuum system. Accelerator Development Department.

Autos & Auto Supplies

80 PONTIAC PHOENIX - silver, 4 dr., a/t, p/s, p/b, stereo, smooth-running car, $1,000. Doug Ext. 2382 or 744-1760.

80 CELICA GT - 5 spd., a/c, am/fm stereo cass., tilt, 2 snow tires, 68k mi., mint cond., $3,300 neg. Ext. 2907 or 475-5891.

74 BMW 2002 - not running, could be repaired, good for parts, rusted rear suspension. C. Flagg Ext. 3128.

86 GMC PICKUP - 20k mi., hi-rise cap, running boards, must sell, $10,000. Bert, Ext. 2050.

85 CHRYSLER LE BARON - 4 dr., loaded, 26k mi., $8,395; 82 Plymouth TC3, a/t, hatchback, 37k mi., $2,395. 281-2208 eves.

80 HONDA ACCORD - fully loaded, mint cond., asking $1,600. 924-1038.

77 DODGE ASPEN WAGON - 84k mi., new snow tires, $1,000. David, Ext. 3406.

73 DATSUN - m/t, still runs, must sell, $100 neg. Voytek, Ext. 2229 or 282-3220.

76 JEEP CHEROKEE - 4wd, $1,200. 744-8790 after 6:00 p.m.

80 PLYMOUTH HORIZON - a/t, good cond., hatchback, clean, $650. 924-1038.

70 CHEVELLE SS - 396 4 spd., Corvette wheels, vinyl roof, low induction, posi. Joan, Ext. 2922 or 395-1588 eves.

84 RENAULT ENCORE - 4 spd., hatchback, am/fm stereo cass., a/c, $2,700, 473-7460.

HONDA CT90 - good condition, trail and road bike, $300. Howard 878-8294.

83 Z28 CAMARO - a/t, a/c, power everthing, new Eagle GT tires, 43k mi., excellent condition, must be seen. Ext. 2228.

84 CHRYSLER LASER - a/t, p/s, p/b, am/fm, new tires, excellent condition, $5,200 neg. Ext. 2446 days or 924-1911 eves.

84 CHEVROLET K20 - 4x4 pick-up, p/s, p/b, sunroofs, running boards, bedrails, dual tanks, c/c, am/fm/cass., 43k mi. Ext. 2922.

80 MONZA - new tires, battery, a/t, good cond., 732-6647.

77 HONDA CIVIC - good for parts, nearly new tires, $100, Ext. 4604 or 744-2955.

78 TOYOTA CORONA - station wagon, a/t, high mileage, 289-0489.

85 FORD T-BIRD - 22k mi., a/c, tilt, cruise, am/fm cass., very clean, mint cond. 758-3749, after 5 p.m.

74 FORD F-250 - 4 spd., bell housing, flywheel; 66 Bronco chassis transfer case; Dodge transfer case. 744-3968.

77 MERCEDES BENZ 300D - 5 cyl., diesel, mint cond., $6,500. Cesar, 281-9150 after 6 p.m.

79 JEEP CHEROKEE - a/t, a/c, tilt, cruise, am/fm cass., 31-10.50 tires, high-mi., asking $3,200. Ken, Ext. 2350, or 588-2389.

82 MERCURY ZEPHYR - black, 6 cyl., p/s, p/b, a/c, am/fm, $2,200. 499-6341.

81 SUZUKI GS250T MOTORCYCLE - 8 valve, 2 cyl., low mi., excel. cond., 2 helmets and manual, $349. Ext. 4411 or 929-8287.

76 JEEP CJ-7 RENEGADE - a/t, v-8, p/s, new shocks, steering stabilizer, brakes, water pump, soft top, 2 tires, $3,500. Ext. 4142.

77 CHEVY - 4x4 pickup, excel. cond., $4,000. Mike, 475-2850 after 6:30 p.m.

72 YAMAHA - SX650, new tires, tubes, battery and windshield, runs very well, $249.95. Tony W., Ext. 4095.

84 CHRYSLER LASER - black, a/c, a/t, p/s, p/b, am/fm, excel. cond., asking $5,200. Ext. 2446 days, or 924-1911 eves.

78 MERCURY COUGAR - a/t, p/b, p/s, am/fm/-cass., $1,350. Antoni, Ext. 4393 or Ext. 3090 after 6 p.m.

84 NISSAN SENTRA - 4 dr., 5 spd., 43 mpg., $3,400. Larry, Ext. 2089 or 473-9048.

78 DATSUN B210 - hatchback, 4 spd., good transp., $450. Anne, Ext. 5055 or 286-0919.

TENT TRAILER - Apache Mesa III, sleeps 6, stove, ice box, awning, extras, $800. Greg, Ext. 3472.

75 CHEVY SPORTVAN C-10 - 6 cyl., 3 spd., good running cond., $795, John. Ext. 2269 or 281-2623.

86 CHEVY S10 - pickup truck, s/s, 22k mi., excel. cond., $5,700. Peggy. 744-5069.

78 YAMAHA MOTORCYCLE - 400cc, good cond., inspected, insured, $400. 473-9223 after 5 p.m.

TIRES - (4) 205-70/14, low, gentle mileage, two good, two great, $80. Sue, Ext. 7235, or 395-3529 after 6.

82 DATSUN MAXIMA - grey, diesel, new tires, am/fm cass., a/c, $4,300. Ext. 2629 or 751-7330.

69 BUICK LE SABER - 350 V8, a/t, good mechanical cond., ugly but reliable, $200. John, Ext. 4570 or 751-2655.

72 PLYMOUTH STATION WAGON - good running cond., $400. or best offer. Ext. 2022 or 744-8386.

Boats & Marine Supplies

15' AQUAGLASS - 71, hull design like Boston Whaler, 1976 85 h.p. Mercury o/b, 1976 Highlander trailer, very good cond., $2,500. 289-1709.

16' V.I.P. SEASQUIRT - w/center console, 50 h.p. Johnson & trailer, $2,500. 889-0315.

12' SNARK SUNFLOWER SAILBOAT - new sail, good cond., life jackets, $90. 744-7242.

19' LIGHTNING SAILBOAT - fiberglass, trailer, three sails, $1,750. Ext. 2880 or 399-1679.

19' SEARAY SEVILLE - 1984, cuddy, i/o, VHF, porto potty, 1984 Shoreline trailer, mint, $9,300. 473-7498.

16' BOWRIDER - rebuilt 70 h.p. trailer, canvas, many extras, all good cond., $2,300. Dan, Ext. 2075, 737-8124.

32' PEMBROKE EXPRESS CRUISER - 318 Chrysler, sound hull, $1,000 or best offer. 928-2568.

22' SEARAY - 74 hardtop, new canvas, trailer, extras, excel. cond., $8,000 firm. 369-2838 after 4:30 p.m.

16' RUNABOUT - 115 h.p., brand-new trailer, $2,500. 585-2096.

FURLING JIB - for 19-22' O'Day or similar boat, $40. 286-1331.

14' CHECKMATE - new seats, carpet, trailer, no motor, $700. Ext. 4688.

25' CHRIS CRAFT - 1975 sleeps 4, stand-up head, hot and cold, in water, many extras, $9,000. 475-8162, eves.

12' MOTH FIBERGLASS SAILBOAT - w/main sail, jib, paddle, complete rigging, $500. Dorry, Ext. 2103 or 286-0126 eves.

19' SPORTCRAFT - 1976, cuddy, 150 h.p. Merc., trailer, df/cb, compass, icebox, extras, good cond., $3,800. Ed, Ext. 7168.

Miscellaneous

CRAFTSMAN RIDING LAWN MOWER - 5 h.p., runs, needs work, $75. 588-6417.

BUNK BEDS - w/mattresses, good shape, comfortable, $35. Ext. 2712 or 289-1732 after 6 p.m.

CABER SKI BOOTS - man's size 7½, used one season, $30, 473-7064.

NEOPRENE SURFING SUIT - man's small, new condition, cost $140, sell $70. Tim, 281-7873.

BRONICA SQ CAMERA — 2¼ 80mm, f2.8, 120 back, prism finders, new, paid $1,600 now $800. Barbara Ext. 2456.

CANNING JARS - 3 doz., $7.50; bottle capper, $10; 4 qt. pressure cooker, $7; manual meat slicer, $3. 878-6637.

TRUNKS - two, perfect for college dorm., excel. cond., $30 each or $50 for both. 473-8387.

CLASSICAL RECORD COLLECTION - many Musical Heritage Society, mostly chamber music, excel. cond. 289-1046 after Aug. 31.

STORM DOOR - jalousie window w/screen, 80" high, 32" wide, $20. 744-5871.

4 CHAIRS - also beds, 1 full & 2 twin; dresser with mirror. 744-1750.

WATERBED FRAME - queen, includes heater, headboard and siderails, excel. cond. Denise, Ext. 3630 or 789-1371 eves.

WASHING MACHINE - $15. Ext. 5400 or 874-3447.

COLONIAL BEDROOM - & dining room set, 2 yrs. old, drastically reduced. Angela 758-4684 eves.

25" MOTOROLA COLOR TV - console, $75; 2 desks, $50-75; coffee table, $40; lamps and chandeliers, $10-50; sewing machine, $65. 277-4091.

SOFA BED - Herculon, wood frame, brown-beige, $150. Marcia, 744-0525.

DINETTE SET - China closet, 4 chairs, table, all formica, $175. 475-4596.

CABINET - for stereo components/records, glass front & lid, like new, 17½" w x 36" h x 16" d, $50, Sue Ext. 7235, 395-3529 after 6 p.m..

GIRL'S BICYCLE - 10 speed, $75; man's 10-speed racing bicycle, $100. Ext. 4898.

DINING ROOM SET - modern, 6 chairs, buffet, china closet, table w/3 Ext., cost $4,500, sell $850. 475-4596.

DINING ROOM TABLE - 6 chairs, china closet, 3 exten., very good cond., must see, asking $450. Ext. 3872.

ANTIQUES - arts & crafts, contents of house, everyday next 2 weeks, Hillside Ave., Rocky Point. Polly, 744-2322.

8' DELI CASE - stainless steel, Pennical, self-contained, lighted, extra shelves, brand-new, $2,500. 736-3885.

GOLF CLUBS & BAG - Spaulding superflite, 1-3 wood. 3-9, pw, $150. Bill, Ext. 4434, 399-6168.

GFI ELECTRICAL OUTLETS - 2 Master Electrician brand, new, usually $20 and up, $15 each. Rick, Ext. 3932.

BABY ITEMS - swing, Bassett crib, all excel, cond. 661-0498.

BABY ITEMS - good cond. 744-9677.

WALL UNIT - 3 pieces, each 6"w x 72"h, marbled formica, $75/pc. Ext. 7918 or 744-3068 eves.

BEDROOM SET - pine triple dresser, framed triple mirror, chest and headboard, excel. cond., $800. Ext. 7727 or 929-4631.

CRAFTSMAN RIDING MOWER - 6 h.p., 26" blade, $100. Kevin, 286-3821 after 5 p.m.

COUNTRY DINING ROOM - table and chairs, 2 leaves, like new, $500. 924-1038.

SCOTT TURNTABLES - 2, belt-drive, light speed controlled vary, one year old, like new, $80 each. Greg, 727-1985.

HUMIDIFIER - Presto custom w/heating unit and 2-speed fan, best offer; Orgatron electronic chord organ, cost $375, sell $125. 744-7242.

WINDOW FAN - 10" high, adj. width, $10; Encyclopedia Americana, 1954 ed., 30 vol., $25. Ext. 3741.

PIANO - beautiful maple spinet. 821-0250.

FREEZER - 2.5 cu. ft., 1 yr. old, $170; 13" color TV, Hitachi $120. Ext. 3029 or 3909.

TOPSOIL - $15 per yd., 5 yds. min. delivered. 924-7746 or 924-9427 after 7 p.m.

WOOD STOVE - cast iron, free standing, repainted w/flue pipe, extras, must see, $250. 758-5592.

PIANO - Sohmer spinet, 286-0612.

HEATHKIT H.F. HAM STATION - MR-1, MX-1, & AC power supply, great for a novice, am & cw 80 through 10m. Jack, Ext. 7869.

COLONIAL HUTCH - tavern pine. 286-1205.

PLAYPEN - $25; highchair, $30; infant seat, $10; ceiling fan, $25; corner hutch, $40. Ext. 2410.

Free

LAWN BOY MOWER - for parts. J. Kinne, Ext. 3711.

BABY GERBILS - 924-3756 day or eves.

Yard Sales

RONKONKOMA - moving sale, Union and Carrol Ave., Aug. 29-30, contents of house, furniture, antiques, car, organ, etc. 588-8251.

SHOREHAM - Miller Ave. School, Aug. 29-30, 9 a.m.-4 p.m., 16 family, benefits Wildcats Soccer Team. Ext. 2965.

BROOKHAVEN - 327 South Country Road, 9 a.m.-5 p.m., Sept. 5, vases, old trunks, speakers, books. 286-1046.

Lost & Found

FOUND - blue & silver earrings, women's locker room, gym. Carrie, Ext. 2073.

Car Pools

PATCHOGUE VAN POOL - seat open, leave name and number. Ext. 4669.

Real Estate

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

For Sale

CENTEREACH - large ranch, 4 bdrm., f/dr, eik, fp, finished basement, 22'x32' garage & workshop, inground pool, 1 acre, part wooded, dead end. 585-7342 after 3 pm.

ROCKY POINT TIDES - hi-ranch, city water & gas, $156,385. Carmine, Ext. 3848.

FARMINGVILLE - 1/2 acre near Suffolk Community College. 929-8317, days or eves.

MEDFORD - Birchwood Blue Ridge Condo, 1-2 bdrms, new appliances, new carpeting, alarm system, many extras. 736-6993 after 6:30 p.m.

OAKBORO, NC - 24 x 45 modular home, 3 bdrm, 1½ bath, l/r, dinette, kitchen, a/c, w/w, furnished, electric heat, city water, appliances, 2 porches, 3½ acres, $50,000. Sheila, Ext. 3325 or 369-2404 after 6 p.m.

PORT JEFFERSON - 4 bdrm, 2½ baths, family room, patio, basement, garage, on ½ acre, 3-Village Schools, $210,000. 928-0281.

For Rent

EAST PATCHOGUE - 1 bdrm apt., private entrance, patio w/grill, cable, all new, avail. Sept. 1, $550 inc. all. 654-0019.

MIDDLE ISLAND - Artist Lake condo, 1 bdrm., l/r, kit., full bath, a/c, new w/w, dishwasher, redecorated, pool, heat incl., 5 min. to Lab., avail. Sept 1, $650. Ext. 3144 or 698-5046 eves.

STONY BROOK - 1 br, bath, eik, l/r, w/w, furnished, dishes, 2nd floor private home, quiet neighborhood, no pets or children, non-smokers, prof. working couple, $600/mo. inc. all. 751-2149 after 6 p.m.

PORT JEFFERSON VILLAGE - 2 br house, basement & garage, walk to Harbor, avail. Sept. 1, $925 plus utilities. Ext. 4094 or 751-6575 eves.

CENTER MORICHES - new 3 bdrm ranch, walk to water, $850 mo. 543-4738.

HILTON HEAD, SC - 2 bdrm condo, sleeps 6, tennis, golf, beach, pool, $400/wk, after Sept. 5, $300/wk. 585-9149.

CENTER MORICHES - studio apt., 2nd floor private entrance, newly refurbished, walk to stores, avail., Sept 1, $450/mo. includes all. 878-1225 or Ext. 4574.

Wanted

TERMITE INSECTICIDE - small quantity, liquid. Ext. 4798, Fred.

DEHUMIDIFIER - used, but working. Ext. 3316.

LAND - acres in NYS, under $10,000. Ext. 3316.

HOUSEMATE - to share large house in Setauket, 2 blocks from SUNY, $400/all. 689-3055 eves.

FIREWOOD - uncut, unsplit, picked up or delivered. Ken, Ext. 3563, or 722-4498.

DEHUMIDIFIER - Maria, Ext. 3033 or 744-0525 eves.

DEHUMIDIFIER - Ben, Ext. 4055 or 689-7326.

BABYSITTER - 3 hours a day for 3 days every week at my home. Larry, Ext. 2089.

LOVING HOME - white cat, long-haired, spayed female, affectionate, litter trained, outdoor/indoor. Ext. 2959, 288-6879.

CHILD CARE - for 4 yr. old, my Ridge home, Wed. a.m., Sept—June, light housekeeping, non-smoker, refs. Sandy, 924-2932.

CHILD CARE - for 6 yr. old, after school, 2:30-5:30 p.m., Holbrook. Ms. McGrath, 472-4087 after 6 p.m.

In Appreciation

To my husband's many friends and colleagues:

I thank you for your expressions of sympathy in my time of sorrow after his death.

— Liliane Schwarzschild

Ads left out of this issue due to lack of space need not be re-submitted to appear in the next issue.