BROOKHAVEN BULLETIN
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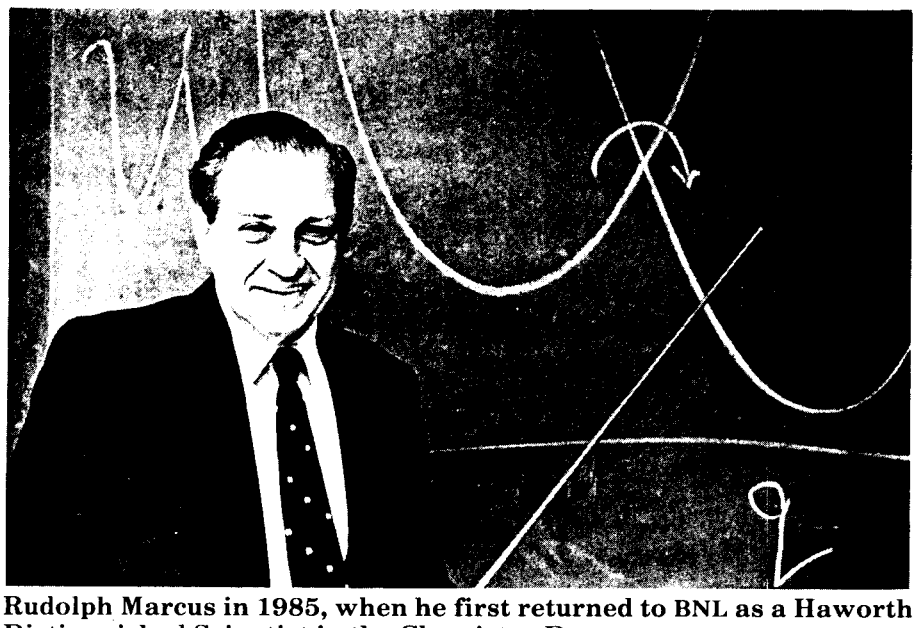
BROOKHAVEN NATIONAL LABORATORY

Rudolph Marcus, Nobel Laureate — The BNL Connection



Alex Reben

Rudolph Marcus in 1985, when he first returned to BNL as a Haworth Distinguished Scientist in the Chemistry Department.

BNLers, particularly those in the Chemistry Department, cheered last week when the Royal Swedish Academy of Sciences announced that Rudolph Marcus has won the 1992 Nobel Prize in Chemistry for his work on electron-transfer theory, carried out over 30 years ago.

According to Chemistry Chairman Norman Sutin, some of the early definitive tests of Marcus's theoretical work were done here at BNL, and Marcus has continued his association with the Lab through the years. His last visit was in 1987, when he returned for his third and final three-week stay as a Haworth Distinguished Scientist.

Marcus's Nobel Prize-winning work is a mathematical analysis of how the overall energy in a system of interacting molecules changes and induces an electron to jump from one molecule to another. It sheds light on many complex chemical reactions, including photosynthesis, corrosion and electrical conductivity in polymers.

Strong Program Out East

Marcus, a Canadian-born chemist now at the California Institute of Technology, was on the faculty of Polytechnic Institute of Brooklyn from 1951 to 1964. He started working on his electron-transfer theory in the early 1950s and soon discovered that out east, on Long Island, was a strong experimental program at Brookhaven on electron-transfer reactions.

The Lab program had been started by Richard Dodson, now retired, then chairman of the Chemistry Department. Sutin came to Brookhaven in 1956 on a postdoctoral appointment to work with Dodson and joined the Chemistry staff in 1958.

Beginning in 1958, Marcus had a series of formal appointments at BNL, ranging from consultant to visiting senior chemist to research collaborator. Sutin shared an office with him and recalled a great deal of interaction and discussion. "He was quite interested in experimental results, very much in touch with experimentalists and appreciative of their contributions," said Sutin.

He continued, "Theory is not cut-and-dried; it's an evolving thing. We had a lot to do with getting Marcus's theory accepted because our experimental work provided the first verification of several of the predictions of his theory. This, in turn, gave him confidence that it was worth pursuing."

In fact, of Marcus's papers describing electron transfer, seven include Brookhaven Lab under his byline, and four are coauthored with Sutin.

A Fundamental Process

The bulk of chemistry consists of electron transfer in one form or another; it is a fundamental process. To understand many areas of chemistry, biology and physics, one must understand how electron-transfer processes occur, what governs their speed, and why electron transfer occurs in some cases and not in others.

(continued on page 3)

Distortion With Intent: DAS Research Shows Porphyrin Properties Change With Their Shapes

Research at Brookhaven on the structure of porphyrins has revealed that by distorting the shapes of these large molecules, it is possible to change their chemical and physical properties.

These findings made by the Porphyrin Chemistry Group in the Department of Applied Science will give a better understanding of the fundamental principles of photosynthesis — the harvesting of solar energy and its conversion into chemical species that drive the biochemistry of green plants, algae and bacteria — and the catalytic functions of porphyrins in many bioenergetic reactions.

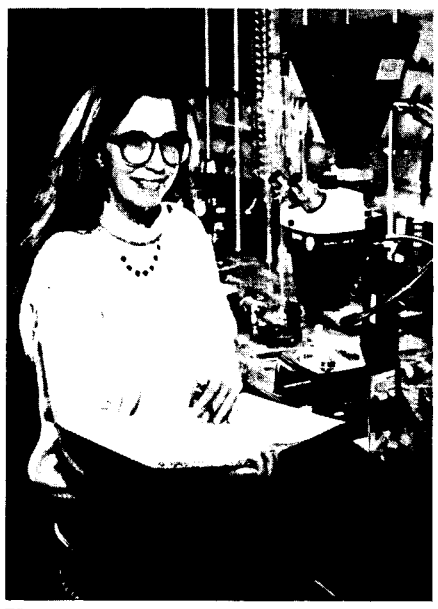
Said Jack Fajer, who heads the group, "Porphyrins carry out a wide variety of biological reactions. In seeking to understand how they function, our aim has been to design synthetic systems that mimic the efficiency and selectivity of biological reactions, while bypassing unwanted biochemical products. Also, by studying simple synthetic models, we get valuable insights into reactions occurring on picosecond time scales — that is, in a few trillionths of a second."

Porphyrins, which consist of carbon, nitrogen, hydrogen and a metal, are best known as the hemes that give blood its red color and the chlorophylls that cause grass to be green. They are involved in reactions as diverse as nitrogen assimilation, methane generation and many electron transfer reactions. There is even a porphyrin that controls the sex of the larvae of *Bonellia Viridis*, a Mediterranean sea worm.

Finding Common Threads

To find the common threads that control these apparently diverse reactions, the group uses experimental, theoretical and structural approaches. Chemist Kathleen Barkigia obtained structural results showing that similar porphyrins can

(continued on page 2)



Roger Stoutenburgh

Kathleen Barkigia in her laboratory.

Keeping Particle Beams Stable

Roger Stoutenburgh

About 90 physicists from around the world have been attending the "Workshop on Stability of Particle Motion in Storage Rings," which has been going on in the Brookhaven Center since October 19 and concludes tomorrow. The workshop meets approximately every two years, and the last meeting held at Brookhaven was a decade ago.

Alessandro Ruggiero, Head of the Accelerator Physics Division of BNL's Accelerator Development Department (ADD) and Chairman of the workshop, said, "Particle beam stability is crucial to the successful functioning of any accelerator or collider, including Brookhaven's Relativistic Heavy Ion Collider [RHIC] and the larger, national Superconducting Super Collider. At this conference, we're exploring new methods to ensure that stability."

Among those who helped to organize and run the conference are (from left): Pamela Manning, ADD; Michael Harrison, RHIC Project; Alessandro Ruggiero; and three workshop committee coleaders, Christopher Iselin, CERN; Stephen Peggs, RHIC Project; and Johan Bengtsson, Lawrence Berkeley Laboratory.

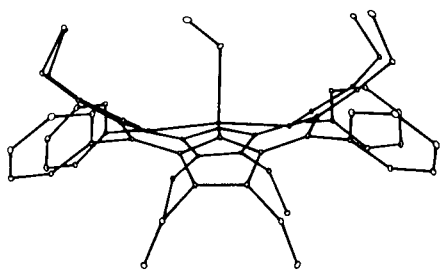
Microbes For Oil Recovery

Roger Stoutenburgh

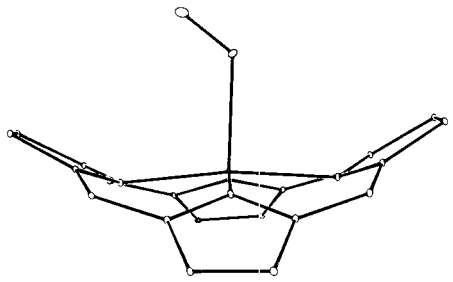
Organizers of the Fourth International Microbial Enhanced Oil Recovery Conference included: (from left) Conference cochair Eugene Premuzic, BNL; Rebecca Bryant, National Institute of Petroleum & Energy Research, Bartlesville, Oklahoma; Fred Burtch, Enhanced Oil-Recovery Program Coordinator, U.S. Department of Energy (DOE) Bartlesville Project Office (BPO); conference cochair Rhonda Patterson, Project Manager, DOE BPO; Mow Lin, BNL; and David (Teh) Fu Yen, University of Southern California. Missing from the photo are Bernard Manowitz, BNL; Mark McCaffrey, Chevron Corporation; and Avril Woodhead, BNL. Also contributing to the success of the meeting were conference executive secretaries Frances (Mitzi) McKenna and Corinne Messana. (See story inside.)

An uncrowded porphyrin, nickel tetrapropylporphyrin, showing the shape of a typical planar or flat molecule.

Three edge-on views of porphyrins, determined by x-ray diffraction, with the hydrogen atoms omitted for clarity. The small, unfilled circles represent the positions of atoms in the molecule. In the distorted porphyrins below, the two atoms atop the center of the complex are a methanol bound to the zinc of the porphyrin, as a result of the solvent used in the crystallization of the molecule.



A zinc octaethyl-tetraphenyl porphyrin, showing the distortion into a saddle structure caused by the substituents attached to the periphery.



The same zinc octaethyl-tetraphenyl porphyrin, showing the distorted shape, but with the substituents omitted from the drawing for clarity.

Porphyrins (cont'd)

adopt very different shapes that range from nearly planar, or flat, to very distorted. The group's interest in the role of the different molecular shapes was reinforced by reports that x-ray structures of bacteriochlorophylls in proteins also showed different shapes. Bacteriochlorophylls are chlorophylls found in bacteria that also carry out solar conversion.

Theoretical calculations by visiting Polish scientist Ewa Gudowska-Nowak, Marshall Newton of BNL's Chemistry Department, and Fajer showed that the light absorption properties of the bacteriochlorophylls in the protein could be explained on the basis of their different shapes.

However, because protein complexes contain thousands of atoms, the crystallographic results are not very precise. Barkigia, on the other hand, obtains higher precision data using crystals of *isolated* chlorophylls and bacteriochlorophylls in single-crystal x-ray diffraction.

In this technique, a tiny crystal of the molecule being studied, measuring about 0.3 millimeters on one side, is exposed to x-rays, which are diffracted by the atoms in the crystal.

High-Precision Experiments

Said Barkigia, "By analyzing the resulting patterns, which are collected electronically, we can determine the structure of the crystalline compounds to within five thousandths of an angstrom, an angstrom being 10^{-8} centimeters. This gives our experiments the very high precision needed for theoretical calculations."

In order to determine the physical and chemical effects of the distorted shapes, the group used a series of porphyrins synthesized by Kevin Smith's group at the University of California, Davis. These porphyrins had been made so that bulky substituents were attached to their periphery. As a result, all their peripheral positions were crowded. The researchers believed that the molecules would distort to prevent the bulky substituents from interfering with one another.

Recalled Barkigia, "The x-ray structure results were dramatic. Instead of the usual planar structures we get from simple porphyrins, the crowded molecules were severely distorted into saddle shapes. Seeing the results so clearly was exhilarating!" (See diagrams.)

Because the Barkigia experiments were made on crystals, which have a definite shape, it was necessary to show that the induced distortion of the porphyrin is *maintained* in other forms, and not merely an isolated property in the solid crystal.

This was done by other group members, Mark Renner and Lars Furenlid. Using two techniques — extended x-ray absorption fine structure at the National Synchrotron Light Source and nuclear magnetic resonance — Renner and Furenlid clearly established that the saddle shapes observed in the solid state were intrinsic properties of the molecules, since they were maintained in solution.

The group could now measure the effects of the distortions directly in solution, where most chemistry is carried out.

The experiments showed that the distorting effects are significant. Changes in shape alter how porphyrins absorb light, how easily they give up an electron, and how they behave in the excited state, which is when they have absorbed light — all properties relevant to the functions of the molecules in solar conversion and in catalysis.

The BNL work has now attracted attention among other research teams in the United States, Japan and France, where similar effects are being found.

Concluded Barkigia, "These results establish that the very simple concept of changing the shape of a molecule offers an attractive mechanism for controlling the chemical and physical properties of porphyrins in biological systems as well as in laboratory experiments." — Liz Seubert

Attn: Retirees

Next month, the Bulletin will publish the annual Special Edition updating retirees' names and addresses, just in time for the holiday season.

We'd also like to include some "retirement notes," your messages, stories or reminiscences that are of interest to the entire BNL community.

To share your retirement note, send it to the Brookhaven Bulletin, Bldg. 134, Brookhaven National Laboratory, Upton, NY 11973. To be considered for publication, your note must be received by Friday, November 6. Submittals may be edited and will be published as space permits.

Correction

As noted in last week's Bulletin article, "Chemistry's Friedlander Honored by German University," Gerhart Friedlander is associated with the Chemistry Department's continuing research into cluster fusion. However, the story and the accompanying photo caption implied wrongly that the cluster-fusion research is only his experiment. In fact, as Friedlander pointed out, the program is a group effort led by Lewis Friedman in which several collaborators, particularly Robert Beuhler and Young Bae, are playing pivotal roles.

Microbes Found Useful For Oil Recovery, Decontamination

While the world's oil reserves are steadily dwindling, over 50 percent of its oil resources are still in place in the form of crude oil as thick as asphalt — too thick to pump out of the ground economically using conventional technology.

Enhanced oil recovery technology is the petroleum industry's term covering novel ways now under development to increase the fraction of oil within a reservoir that can be pumped. And it includes the use of microorganisms that break down heavy oil into lighter oil, thus decreasing the oil's viscosity and increasing the likelihood that it can be pumped using existing technology.

The worldwide potential of these oil-eating bacteria was the subject of the Fourth International Microbial Enhanced Oil Recovery Conference, held at BNL on September 8-11 and sponsored by the Bartlesville, Oklahoma, Project Office of the U.S. Department of Energy.

Conference cochairman Eugene Premuzic, a BNL scientist and Deputy Head of the Biosystems & Process Sciences Division of BNL's Department of Applied Science, has developed several processes involving the use of certain bacteria to break down heavy molecular-weight oil into lighter fractions. These processes are the subject of a pending patent application owned by Associated Universities, Inc. (AUI), the operator of BNL.

"The organisms with which we work thrive under extreme conditions of temperature, pressure, acidity and salinity," says Premuzic. "While these particular organisms have yet to be field-tested, a number of successful field trials with other organisms have been held in Russia, Romania, the North Sea and Oklahoma."

Premuzic's research has also focused on the microbial removal of sulfur, heavy metals and other contaminants from all fractions of oil.

Since petroleum oil as it comes out of the ground is naturally contaminated with organic compounds containing sulfur, heavy metals and the like, Premuzic's work has implications for the petroleum processing industry. In addition, his findings may be employed in the cleanup of any existing oil containing added contaminants — including PCBs — that must be removed before the oil can be recycled.

In fact, Premuzic and his group have discovered 10 strains of PCB-eating bacteria, now being patented by AUI, that apparently decompose up to 70 percent of PCBs within oil in 90 days — faster and more efficiently than other such bacteria. The thrust now is to find out how to optimize the conditions under which the bacteria break down PCBs, while trying to understand the mechanism by which they do so.

— Marsha Belford

Coming Up

Dixy Lee Ray, former Governor of the State of Washington and Chairman of the Atomic Energy Commission, will present an AUI Distinguished Lecture. Her talk on "Environmental Myths and Their Consequences" will begin at 4:30 p.m. on Thursday, November 5, in Berkner Hall.

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The Borealis Wind Quintet will appear with pianist Dag Achatz, in the next BERA Concert, on Monday, November 9, at 8 p.m., in Berkner Hall. The combined program includes works by Vincent D'Indy, Wolfgang Mozart and Ludwig Thuille. The quintet will perform solo a composition by Gyorgy Ligeti, while Achatz will play sonatas by Domenico Scarlatti.

Tickets can be purchased at the door for $12 general admission, $9 students and people over 65, and $5 for youths under 18.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, October 26, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda will be regular business, committee reports and the president's report.

In Memoriam

Harold E. Knudsen, who retired on September 30, 1981, as a technical supervisor I in the Alternating Gradient Synchrotron (AGS) Department, died of bone cancer on August 8. He was 74. Having begun work on March 17, 1958, as a technician C, Knudsen spent his 23 years at the Lab career within the AGS Department. A former resident of Hampton Bays, Knudsen is survived by his wife Lucille Knudsen, sons Kenneth Knudsen and Richard Knudsen, stepdaughter Rosanne Gordon, stepson Brian Tureski, five grandchildren, and one great-grandchild.

On October 25:

Equipment Demos

B&B Motor & Control Corporation will conduct an informational, hands-on seminar on motion control, on Tuesday, October 27, from 8 a.m. to 3 p.m., in the Berkner Hall lobby.

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Xerox Engineering Systems will present an engineering information systems seminar on Thursday, October 29, from 10:30 a.m. to 2 p.m., in Berkner Hall. The seminar will feature Xerox's Docuplex engineering drawing management system, Versatec products and 3050 engineering copier. Refreshments will be served.

Bowling

Red/Green League

H. Arnesen bowled a 246/226/206/678 scratch series, A. Warkentien 226, R. Larsen 225/222/627 scratch series, R. Mulderig 222/612 scratch series, R. Eggert 217, K. Koebel 209, F. Griswold 212/203, M. Guacci 205, M. Palumbo 204, R. Raynis 204, E. Sperry IV 203, S. DiMaiuta 201.

Purple League

John McCarthy bowled a 248/629 scratch series, Ed Beadle 236, Joe Ferrante 230/213/181/624 scratch series, Paul Callegari 213, Ed Sperry IV 204/191/204/599 scratch series, Vito Manzella 195, Debbie Keating 190/188, Tracy Ryan 177, Marilyn Picinich 177, Renée Flack converted the 5,8,10 split.

White League

Ben Belligan bowled a 233, Barbara McCarrick 224, Ken Riker 223/190/571 scratch series, Andy Warkentien 221, Joe Mayeski 219/213/577 scratch series, Phil Radusewicz 202, Mike Meier 198/180, Lorraine Roecklein 188/187, Mary Grace Meier 180/172, George Munoz 180, Pat Oster 175/174.

Software Corner

Unix Courses

The Computing & Communications Division (CCD) will offer the following courses:

- Introduction to UNIX, 5 half days, 12/7-11, a.m.; 12/14-18, p.m.
- IBM Risc 6000 AIX Internals, 10 half days, 12/7-11, p.m.; 12/14-18, a.m.
- Sun OS System Administration, 5 full days, 1/18-22/93.

At a cost of $500 each, seats are limited. For a course outline or to sign up, contact Ron Wittlock, Ext. 4112, or send E-mail to wittlock@bnl.gov.

Builder Xcessory

John Skinner, of BNL's Biology Department, will give a presentation on the graphical user interface (GUI) builder "Builder Xcessory," on Wednesday, October 28, from 10 a.m. to noon, in the CCD Seminar Room, Bldg. 515.

Skinner will describe the development of a GUI for an existing command line-driven FORTRAN program that runs under the UNIX and VMS operating systems. This effort used Builder Xcessory for construction and involved relatively minor additions to the original program. The methodology can easily be applied to convert existing command line-driven programs to GUI-driven, irrespective of the implementation language.

Fine Feathered Friends Take Flight

A scene from *The Birds?* No — when a flock of migrating birds paused at the Lab, photographer Roger Stoutenburgh was on hand to capture their takeoff in this picture.

Arrivals & Departures

Arrivals

Rajasekhar Balasubramanian...DAS
Paul Barba.....RHIC
Nithayanathan Chetty.....Physics
Iouri Kiriouchine.....Physics
Michael Santana.....NSLS
Mark S. Wiesenberg.....CCD

Departures

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

Ellis B. Zuckerman.....DAS

Note to Employees:

Attendance at lectures, meetings and other special progams held during normal working hours is subject to supervisory concurrence.

Cafeteria Menu

Luncheons

Monday, October 26

Soup: Cream of tomato	.80/1.10
Entree: Arroz con pollo	3.35
Lite Choice: Roast pork w/brown gravy	3.65
Carvery: Hot pastrami sandwich	2.95
Grill: Monte Cristo sandwich platter	3.25

Tuesday, October 27

Soup: Pumpkin	.80/1.10
Entree: Grilled ham steak	3.35
Lite choice: Spaghetti w/meatballs	3.20
Carvery: Hot roast beef sandwich	2.95
Grill: Marinated boneless chicken breast w/bacon	3.65
Special: Pumpkin soup & salad	

Wednesday, October 28

Soup: Chicken rice	.80/1.10
Entree: Moussaka	3.20
Lite Choice: Baked chicken teriyaki	3.35
Carvery: Hot baked ham sandwich	2.95
Grill: Salmon fillet w/rice pilaf	3.65

Thursday, October 29

Soup: Country vegetable	.80/1.10
Entree: Spareribs Hawaiian	3.65
Entree: Fried chicken	3.45
Carvery: Corned beef sandwich	2.95
Grill: Italian sausage grinder	3.95

Friday, October 30

Soup: Manhattan clam chowder	.80/1.10
Entree: Halibut w/Bordelaise sauce	3.45
Lite Choice: Macaroni & cheese	3.20
Carvery: Turkey sandwich	2.95
Grill: Tuna melt	2.95

Trick or Treat: Free soda or coffee if in costume

Monday Night Football
9 p.m. . . . .Brookhaven Center

Marcus (cont'd)

Early BNL studies of electron-transfer reactions used radioactive isotopes to examine the simplest class of reactions, the electron-exchange reaction, in which there is no net chemical change. Such reactions are most conveniently studied by using a radioactive isotope to label the chemical form containing the electron. The chemical forms with and without the electron are then separated as a function of time and their radioactivity determined. This provides a measure of the electron-transfer rate.

By the 1950s, several of the national labs supported by the Atomic Energy Commission, a predecessor to the U.S. Department of Energy (DOE), had developed considerable expertise in working with radioisotopes, a natural outgrowth of nuclear developments in World War II. BNL's Chemistry Department was an ideal location for early experiments on electron transfer because of the expertise here and the availability of radioisotopes from Oak Ridge National Laboratory. The isotopes supplied by Oak Ridge were converted to an appropriate chemical form at Brookhaven.

The results of these studies were surprising: Despite the apparent simplicity of the electron-exchange processes (no chemical bonds were made or broken), the electron-transfer rates varied over a very large range.

Intrigued by Early Results

"Marcus was intrigued by the early exchange results," said Sutin, "and they, in turn, reinforced his interest in electron-transfer theory. He soon extended his early electron-transfer work to include reactions accompanied by a net chemical change, in theoretical work that came to be called the Marcus cross-relation."

Sutin added, "Our work here led to refinements and extensions of theory. The theory, in turn, suggested new experiments." The dialogue between Marcus and Sutin continued over the years, reflected by their joint authorship of four papers during 1975-1986.

BNL Acknowledged

Marcus acknowledged BNL in an article on his work in the July 1986 issue of *Journal of Physical Chemistry:* "Frequent visits to the Chemistry Department of the Brookhaven National Laboratory during this period and discussions there of experiments with Dick Dodson and Norman Sutin served as a considerable stimulus. It was indeed in a conversation with Norman around 1962 that I mentioned the cross-relation to him. Norman had the various rate constants at his fingertips and, to our delight, the relation seemed to work. This result and tests of other predictions were published in 1963. During the sixties and seventies Norman pioneered, among his many other studies, the experimental testing of the cross-relation, its applications to biological molecules (cytochrome *c*), and the related predictions on the effect of the standard free energy of reaction on the rate."

In the late 1980s, a group at Argonne National Laboratory provided the best confirmation of a remaining prediction of the Marcus theory, namely, experimental evidence for the so-called "inverted region" where rates decrease with increasing driving force.

As for Sutin's electron-transfer experiments, they evolved into studies of light-induced, electron-transfer reactions — the reactions that drive photosynthesis. The current program investigates the storage of solar energy through chemical change, and is funded by DOE's Chemical Sciences Division, within the Office of Basic Energy Sciences under the Office of Energy Research.

"It's important to note that our electron-transfer work has always been funded as basic research," said Sutin. "The knowledge gained has significant implications for the design of practical systems involving energy conversion."

— Mona S. Rowe

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Classified Advertisements

Placement Notices

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

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and, second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees

NS 0412. DATA SERVICES POSITION - Requires data entry and database applications experience. Under general supervision, will perform file and hardware maintenance, data entry, and file processing and manipulation. Will also assist with IPAP, JCARs and other administrative data-entry tasks. Medical Department.

NS 6141. BUDGET POSITION - Requires a bachelor's degree in accounting or business administration or equivalent, excellent oral and written communication skills, and a knowledge of Laboratory policies and procedures. Familiarity with MIS inquiry systems (accounting and budget systems) highly desirable. Will assist and support in diversified budget and administrative needs of Department. Alternating Gradient Synchrotron Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 1078. ENGINEERING POSITION - Requires BSEE and approximately ten years' experience in instrumentation and electronics design. Experience with high energy or nuclear physics detection systems preferred. Work will involve the development of data acquisition and trigger electronics for detectors. RHIC Project.

LS 0413. MEDICAL ASSOCIATE POSITION - Requires a BS/MS in chemistry, and experience in the following areas: handling and counting radioactivity, aseptic preparations, animal experimentation and techniques such as HPLC, PAGE, TLC and UV-VIS. Duties will include preparing, characterizing and purifying radiopharmaceuticals and radiolabeled antibodies for research on diagnostic and therapeutic medical applications. Medical Department.

LS 0104. ENGINEERING POSITION - Requires a BSEE, significant experience in the electrical aspects of facilities design, including electrical power, lighting, controls and fire alarm design. An advanced degree and professional registrations highly desirable. Will be responsible for preparing design drawings and specifications for bidding purposes and managing engineering projects from conceptual to final design and construction phases. Must be able to obtain and maintain a security clearance. Plant Engineering Division.

Motor Vehicles & Supplies

91 KAWASAKI VULCAN MOTORCYCLE - 500cc, 4k mi., mint cond., $2,750. Dave, 874-3237 eves.

90 MUSTANG GT - white, 5.0, 5-spd., fully loaded, sunroof, leather int., custom wheels, tinted windows, 36k mi., $12,300. Doug, Ext. 5857.

90 NISSAN 300ZX - gold pearl, a/t, 21k highway mi., leather, showrm. cond., sacrifice, $16,900. Amy, 924-7552.

90 MITSUBISHI ECLIPSE - 5-spd., ac, new brakes, belts, runs well, body in excel. cond., well maint., asking $6,700. Jim, Ext. 5439.

89 FORD F150 PICKUP - 302, V-8, 4-spd., p/s, p/b, 70k mi., $6,700. 878-4177.

89 JEEP CHEROKEE - 2-dr., m/t, 56k mi., excel. cond., $9,800. Fred, 929-0468 after 6 p.m.

89 PLYMOUTH SUNDANCE RS - 18k mi., a/t, ac, p/s, p/b, sunroof, p/w, p/l, am/fm cass., fog, excel. cond., $6,500. Eric, Ext. 5875.

88 NISSAN 4x4 PICKUP - p/s, p/b, fm cass., cap, more, good cond. $7,500. Fran, 369-9062.

(continued on page 4)

Classified Ads (cont'd)

88 PLYMOUTH VOYAGER LE - 3L, V-6, all extras, clean, high mi., runs well, best offer. Connie, Ext. 2594 or 727-1483.

88 HYUNDAI EXCEL GL - 4-dr., 5-spd., 46k mi., am/fm stereo cass., sunroof, alarm, new batt., 35 mpg, excel., $2,650. Reyad, Ext. 3913 or 345-3957.

87 MERCURY SABLE - 4-dr., silver, 66k mi., orig. owner, all options, excel. cond. Paul, 751-2149.

87 CADILLAC BROUGHAM - 4-dr., 33k mi., $7,000. 286-0466.

87 MUSTANG GT - 5.0, red, 5-spd., ac, cass., 43k mi., new tires, exhaust, battery, orig. adult owner, $6,700. Jerry, Ext. 3930.

87 HYUNDAI GL - 2-dr. h/b, w/manual trans., good cond., good price. Marlene, 744-5801.

87 MITSUBISHI PRECIS - 4-cyl., m/t, 33 mpg, 63k mi., Awia am/fm cass., 50 watt system, mint cond., $2,095. Carl, Ext. 5283.

87 CHEVY SPRINT - blue, 4-dr., 3-cyl., 40k mi., needs body work, $600. Nicole, 744-4816.

87 CHRYSLER LEBARON - 75k mi., a/t, ac, p/s, cruise, am/fm cass., new battery, $3,500. Masaki, Ext. 2609/5627.

86 GMC SUBURBAN - 350 ci., a/t, ac, am/fm, ¾-ton, new shocks, tires, tune up, $2,650. Ext. 4843 or 567-6227.

86 MERCURY COUGAR - maroon, V-6, 3.8L, p/s, p/w, p/l, alarm, ac, cruise, 60k mi., excel. cond., $3,950. Pat, 941-9283.

86 BUICK SKYHAWK - 4-dr., brown, ac, p/b, p/s, cruise, p/l, p/w, runs well, $2,200 neg. Sydell, Ext. 3389 or 727-6385.

86 FORD BRONCO XLT 4x4 - full power, a/t, new tires & battery, int. like new, good cond., asking $4,500. Chris, 286-1348.

86 CHEVY CHEVETTE - new brakes, tires, starter, moving, good cond., $1,200. 286-9426.

86 JEEP WAGONEER LTD - p/w, p/l, p/seats, V-6, a/t, ac, cruise, 110k mi., 4wd, excel. cond., $4,795. Henry, Ext. 5214 or 727-7227.

85 PONTIAC GRAND AM - red, ac, sunroof, am/fm stereo cass. rec., 103k mi., v.g. cond., must see, $1,950 neg. Nathan, Ext. 3571 or 341-1062.

85 FORD BRONCO II XLT - 5-spd., ac, full power, new clutch, 112k mi., good cond., $3,000. Kathy, Ext. 7105.

85 CHEVY MOTOR HOME - 23', sleeps 6, all new tires, 31k mi., must see, $17,000. Scotty, 732-5445.

85 BUICK REGAL LTD - midnight blue, tinted windows, am/fm cass., cruise, runs well, $3,000. Christine, 286-4969 after 6 p.m.

84 OLDS DELTA 88 ROYALE - orig. owner, a/t w/o.d., ac, p/s, p/l, p/b, 55/45 seat, cruise, 307 V-8, lt. blue, high mi., runs well. Len, Ext. 3554.

84 MERCURY TOPAZ - 5-spd., 110k mi., 33 mpg, mech. excel., body good, $850 or best offer. 929-8443.

84 FORD LTD CROWN VICTORIA - 2-dr., 92k mi., v.g. cond., 473-1658 after 6 p.m.

84 HONDA 750K - black, Windjammer trunk bag, 13k mi., mint cond., ask. $1,100. Bob H. Ext. 4446.

83 HONDA CIVIC - 5-spd., 33 mpg, runs well, good station car, $500 or best offer. Ext. 3662 or 929-5042.

83 OLDS DELTA 88 - 94k mi., am/fm cass., ac, p/s, p/b, cruise, v.g. cond., leaving BNL, must sell, $1,600 neg. Panu, Ext. 5270 or 341-1076.

83 BUICK REGAL - 2-dr., am/fm cass. radio, good tires, fair cond., asking $575. Darlene, Ext. 4685.

80 SUZUKI RS 175 - motor rebuilt, needs work, runs, asking $90. Phil, 286-1348.

80 CHEVETTE - 2-dr. h/b, a/t, ac, fm stereo tape, new brakes, M/S tires, good cond., $500. George, Ext. 3061 or 751-0265.

78 FORD VAN - runs, best offer. Rick, Ext. 3803.

78 MUSTANG II - many new parts, good running car, sharp looking, no rust, $1,200 neg. P. Fish, Ext. 5320.

76 PLYMOUTH VOLARE - 4-dr., 4 on the floor, passed inspection, runs well, best offer. 728-4495.

74 CHRYSLER WAGON - Town & Country, a/t, ac, p/s, p/b, p/w, $300. Tony, 698-9274.

69 DODGE DART - clean, family owned, 6-cyl. eng., 112k mi., good running cond., $600 or best offer. Ext. 2949 or 427-2435.

RIMS - 4, A.R.E. Directional Chevy, 6-lug, alum., 15"x8", $200. John, Ext. 5565.

TIRES - BF Goodrich, a/t, radials, 33x12.5x15 on deep dish rims w/4x4 center caps, nuts, locks, almost new, $700/4. Joann, 472-6742.

UTILITY TRAILER - 5'wx8"lx4'h, excel. cond., $275 neg. Rich, 765-2847.

Boats & Marine Supplies

23' FRIENDSHIP SLOOP - freshwater-cooled Volvo diesel, DS, knotmeter, compass, autopilot, launched '83, excel. cond. Ext. 2177 or 298-4985.

22' MARSHALL CATBOAT - freshwater-cooled Yanmar diesel, VHF radio, depth sounder, Danforth compass, head. Gordon, 477-2269.

25' MORGAN SAILBOAT - recent sails & outboard, reduced price while in water. Steve, Ext. 4008 or 821-0686.

20' BOAT - deep V hull, fg, i/o Volvo, o.d., 8-cyl., Ford mounting, $300; Ford 302 engine. $100. Ken, 878-1920.

19' STINGRAY - 140 i/o, cuddy like new, Coast Guard pkg., trailer needs work. John, Ext. 3499.

18' BOAT - motor trailer, fg, 50-h.p. Yamaha, $1,500 or trade for good car. Pat, pager 2304 or 399-3984 eves.

Furnishings & Appliances

BED - king-size, headboard w/lights, mirrors, drawers below, pine, excel. cond., $125. 874-2789.

BED FRAMES - metal, 2 twin, $5/ea. 928-0615.

BEDROOM SET - walnut, $150; mattress, boxspring & frame, Colonial, sleeper, sofa, excel. cond., $300; fan chair, $30; much more. 588-6417.

BED - queen-size, mattress & boxspring. Dipti, Ext. 4372 or 345-5240.

BUNKBEDS - w/matching dresser, $350; Bassett dresser w/mirror & matching armoire, $300. Joann, Ext. 2238.

CLOTHES DRYER - elec., 220 volts, s/s drum, excel. cond., $75; couch, gold stripe chair, green, $150/both. Paul, 727-4859.

COFFEE TABLE - & 2 end tables, wood, $20/ea. 472-3254.

COUCH - chair & recliner, yellow, for porch or bsmt. rm., cheap; table, 8', blue Formica, contemporary, good cond. Ron, Ext. 4715 or 298-5625.

COUCH - Ethan Allen, 7', excel. cond. 325-0447.

DESK - oak rolltop, 1 yr. old, excel. cond., $650; large microwave, $100; compact microwave, $50; rower/skier, $75. 821-3762.

DINETTE - pine set, 4 captain's chairs, round table w/2 leaves, pads, hutch, excel. 957-8068.

DINING ROOM - table, Danish walnut w/padding, 2 leaves, no chairs, $200 or best offer, must sell. Joann, 472-6742.

DINING ROOM - table & hutch, beautiful solid oak made by Richardson, $625. Sharon, 924-5505.

DISHWASHER - Magic Chef, $225; microwave, full-size, $75; sectional couch w/sleeper, $1,500. Tom, Ext. 7287 or 744-4535.

EASY CHAIR - modern, new cond., $15; table lamps, $5/ea., assorted dishes & vases, etc. Walt, Ext. 2241.

HEADBOARD - dark pine, footboard & frame, queen-size, $50; wagon wheel chandelier, $50. Ext. 3803 or 874-4017.

KEROSENE HEATERS - two, $25/ea. Al, Ext. 5128.

KITCHEN TABLE - mica, square 60" w/one leaf, 4 caneback chairs, good cond. Bob H. Ext. 4446.

LIVING ROOM - sofa bed, love seat, glass/brass tables, mint, $890. Doug, Ext. 4661 or 281-4541.

MATTRESSES - 2, twin-size, & boxsprings, x-long, $20/ea., you pick up, Tracy, Ext. 5864.

OVEN - convection, used few times, like new, $35. Dusan, Ext. 5665 or 201-546-7014.

PORCH FURNITURE - 3 rockers, 1 antique chair, custom upholstry plus white wicker daybed, neutral colors, excel., must see, $900. 369-0432.

REGRIGERATOR - Westinghouse, frost free, 14 cu. ft., good cond., $125, will help move. Stephen, Ext. 4477 or 924-5510.

SANDWICH TOASTER - $10; clamp-on table lamp, $5; Sears telephones, $5/ea. Lie Ping, Ext. 3867.

SOFA - sectional, 7 pieces, dusty rose, good cond., $500; hutch, country pine, new cond., $400. 744-3842.

STOVE - elec., 21", $150; sink & vanity, $75; elec. grill, $50. 281-8290.

VACUUM - Eureka, canister, $35; antique oak Princess dresser, $375; 30" shower door, never used, $30 Henry, Ext. 5214 or 727-7227.

WATER BED - queen, semi-motionless, mattress, 3 mos. old, w/20 yr. warr., v.g. cond. Ken, 878-1920.

WATER BED - complete base, frame, heater, 2 yrs. old, asking $250. Joe, Ext. 2314.

Tools, House & Garden

FIREWOOD - seasoned oak. J. Scesny. 732-2849.

FIREWOOD - seasoned hardwood, split & delivered, $115 per cord, half cords available. Glenn, Ext. 2035.

GENERATOR - 1992, 4,000 kW rated for industrial use, never used, new $900, sell for $550. John, 744-7144.

INSULATION - new, 4 rolls, R-19, 6" thick, take all, must pick up, foil face, $50. Susan, Ext. 7647.

LAWN MOWER - John Deere model GX75 w/tricycler kit for mulching, must sell, used only 2 mos. Tom, 928-7539.

SPREADER - Scott, $10. Reggy, 286-8849.

STORM DOOR - 30"x80", heavy-duty, brown crossbuck, brand-new, ½ price, $75. Ext. 4049.

STORM DOORS - one 36.5x80.5 R.H. OP.; one 30.5x80.5 L.H. OP., white w/glass & screens. 588-3999.

TANK - water storage, 82-gals., Howard glass-lined, used 6 mos., $250. Annette, Ext. 3662.

VACUUM - Billy Goat, leaf, 5-h.p., large cap. bag, 4" vac. hose, attachment, $400; blower, Giant Vac, 5 h.p., $300. John, Ext. 5211 or 732-7568.

VACUUM - gas, blower, new, 32cc, 170 mph, gutter attachment, $125. 588-6417 after 4 p.m.

WOOD PANELING - ¼" walnut, good quality, used, over 10 sheets, $25/all. Tom, Ext. 4507 or 878-1060.

Sports, Hobbies & Pets

BIJON FRISE - AKC, white, 5 mo. old, long straight, fluffy, pure white, non-allergenic. Ron, Ext. 4715 or 298-5625.

BIKE - Huffy, girl's, 20", pink & white, asking $30. Kristin, 473-6140.

BIKE - Sears Free Spirit, man's, 10-spd., $35. P. Fish, Ext. 5320.

CAMERA - Nikon F-3, 28-70 zoom, 80-200 telephoto w/gadget bag, $475 firm; exercise bike, Sears, Trade Winds model, $80. Ext. 2384 or 924-8558.

CAMERA - SLR Olympus OM25 program 50mm lens, Soligor 35 to 140mm lens carrying case, sunpack autoflash 433D, $275. Neil, Ext. 2860.

COMPOUND BOW - Golden Eagle turbo cam, left-handed w/quiver, 65 lb., 29"-30" draw, $125. Mark, Ext. 4289.

DOGGIE IGLOO - brand-new, good for medium or large dogs. Cathy, 286-5962.

EDITOR - 8mm movie comes w/8mm S.L.R. movie camera, $20. Jack, Ext. 7869.

EXERCISER - Weslo Cadence 2050 treadmill, 3 mos. old, cost $400, sell $250. 957-8068.

ORGAN - Wurlitzer 4060, needs some work, ask. $75. Phil, 286-1348.

The Brookhaven Bulletin is printed on paper containing at least 50 percent recycled materials, with 10 percent post-consumer waste.

GUITAR EQUIPMENT - GK250RL, $150; Nady 201 wireless system, $200. Doug, Ext. 4661 or 281-4541.

PUPPIES - AKC standard poodles, 3 males, 2 females, 1 black, 4 chocolate, 5 weeks old. Nancy, Ext. 4440 or 928-7539.

RADIO CONTROL EQUIPMENT - car base, bodies, batt. charger, batt. pack Futaba Pro-Portional radio, other access., $215. Tom, Ext. 7625.

SKIS - Blizzard 170s, Tryolla 230 bindings, man's size 10 boots, $75/all. Jim, Ext. 4026 or 821-9814.

STEPPER - Precor 718E, w/hyd. shocks & computer, paid $430 ask. $240. 368-3922 after 6 p.m.

Audio, Video & Computers

COMPUTER - Macintosh SE, 20 meg. hard drive, 4 meg ram, games, software, extended keyboad, manuals, mouse, ask. $400. Vito, 243-2743.

COMPUTER - IBM compat. 80286, 40 MB hard disc, two floppies, modem, EGA, EGA-monitor, etc., $550. Dusan, Ext. 5665 or 201-546-7014.

COMPUTER - Commodore 64, disc drive, Okimate 20 color printer, access. & extensive disc library, neg. Walter, Ext. 4986 or 757-6392.

COMPUTER - TRS 80, excel. cond., w/printed disc drive, full set of manuals. Pat, Ext. 7635.

COMPUTER SYSTEM - Commodore 64, color monitor, disc drive, printer, joysticks, lots of games, word processor, etc., $200. Don, Ext. 2249.

COMPUTER - XT compat., EGA color monitor, 5¼" disc drive, mouse, 32 MB hard drive, Panasonic dot matrix printer. Steven, Ext. 5694.

RECEIVER - NAD w/2 Criterion 25A speakers, $100; 6 recessed light sets, white fronts, $10 ea, $50/all. Henry, Ext. 5214 or 727-7227.

SPEAKERS - 2 tower, air suspension, 4-way, 42¾"x16⅜"x13", 130 W, 8 ohms, 3000 Hz, 8000 Hz, like new, walnut, $50. P. Fish, Ext. 5320.

STEREO - tape deck, cassette, headphones, etc., never used, cost $250 sell for $75; entertainment center, Col. maple, 6'x3'x2', $150. 744-3824.

TURBO GRAFX 16 - comes w/6 games, brand-new, $100 neg. Kristin, 473-6140.

TV - Toshiba 19", $120; VCR-HiFi, $140; microwave, $100. Masaki, Ext. 2609/5627.

VIDEO - mini-cam recorder, Sony model CCD-TR4, extra tapes & battery pack, $500. 331-3969.

VCR TAPES - new Maxell GP, $3 ea; diskettes, new 360k, 25/pack, $6; enlarging lens, $75. Susan, Ext. 7647.

Miscellaneous

AIRLINE TICKETS - American Airlines, LA to Islip, one-way, 4 tickets avail., $100/ea, $25 ea. to change date. 341-1039.

OPERA TICKETS - Met Opera, *Elisir D'Amore*, Sat. matinee, Dec. 5, balcony center. Row B, $66/pair. Dave, 941-9022.

PLAYPEN - 45"x45", top quality, mesh sides, padded frame, excel. cond., $25. Neil, Ext. 2860.

SHEARLING JACKET - woman's, Sawyer, size 10, $70 or best offer. 286-4291.

TYPEWRITER - electric, Smith Corona, $10. Peggy, 286-8849.

Free

CAT - lovable 2-yr.-old female, black, white spot on tummy, spayed, has shots. Domino, 447-1640.

Yard & Garage Sales

SHOREHAM - multifamily, Cooper St., 1 block south SWR Middle School off Randall Rd.

Car Pools

BOHEMIA-E.ISLIP-OAKDALE-SAYVILLE - needs 1 more driver, call for interview. Frank, Ext. 2314.

STONY BROOK - existing car pool wants more members. Jag, Ext. 5080, or Morris, Ext. 4192.

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 Rent

BELLPORT VILLAGE - 1-bdrm. ground floor apt. in 2-family house, nonsmoker, no pets, enjoy the village amenities, avail. 12/1, $675/mo. incl. util. Jim, 758-0393 after 5:30 p.m.

BROOKHAVEN HAMLET - 1738 restored 2-bdrm. Eng. cottage, hand-hewn beams, 2 baths, fp in d/r, greenhouse off kit., country setting, $1,200/mo. + sec. & util. Sue, Ext. 2888 or 286-0422.

E. PATCHOGUE - 3-bdrm. house south of S. Country Rd., mint, quiet, gar., bsmt., appl., no pets, nonsmokers, $900/mo. + util., sec./refs. Ext. 3291 or 589-3020.

MEDFORD - 1-bdrm. apt., priv. ent., all util., cable, $550/mo. + 1 mo. sec. Gerry, 447-6528.

MILLER PLACE - new furn./semi-furn. studio, full bath, kit., priv. ent., deck, wooded, near beach, mature, single person, $475/mo. + sec/refs. & ⅓ elec. 473-6950.

MILLER PLACE - 1-bdrm. apt., l/r-kit., spare room, bath, priv. ent., util. incl. 473-1658 after 6.

PORT JEFFERSON STATION - 3 lg. rooms, modern kit. & bath, priv. ent., nonsmokers only, bsmt., $600/mo. all, immed. occup. 473-1456.

SHIRLEY - 2 new 2-bdrm. apts., $700 & $800/mo. includes all, working couples, no pets, close to shopping & BNL. 472-3090.

SHIRLEY - female to share new house, priv. ent. & bath, 15 min. from Lab, walk to beach, use of house, yard, shed, $500/mo. incl. util., + sec. Victoria, Ext. 3084/3366 or 821-2854.

SOUND BEACH - 2-bdrm. contemp., great room, Euro kit., d/r, bath, loft, skylight, deck, Andersen windows, energy eff., on wooded lot, avail. 11/1, $775/mo. + util. Erik, Ext. 4603.

SOUND BEACH - 1 bdrm., full bath, kit.-l/r combo, cable priv. ent., furn., $625/mo. incl. all. 744-3284.

SOUTHOLD - 3-bdrm. ranch, 1 acre waterfront, 2½ baths, unfurn., 1 family only, no pets, 11/1 occup., $1,175/mo. + 2 mo. sec., Dan or Mara, 821-0469.

SOUTHOLD - 2 bdrm., l/r, kit., bath, 1 family only, no pets, $800/mo. + 2 mo. sec., refs. 727-7741.

SPEONK/WESTHAMPTON BEACH - 2-bdrm. condo, 1½ baths, cac, patio, approx. 1,000 sq. ft., skylights, w/w carpeting, 20 min. to Lab, $775/mo. + elec. & sec. Rich, Ext. 4834 or 325-8336.

STONY BROOK - fully furn. 3-bdrm. house, 2 baths, gar., eik, d/r, l/r, yard, 5 min. to SUNY, 20 min. to Lab. Joe or Linda, 689-5379.

WADING RIVER - 1-bdrm. house, newly dec., full bath, w/d, dw, refrig., spiral stair to loft/de w/skylights, Sound view, patio, no pets, $850/mo. + util. Grace, Ext. 2529 or 286-0556.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, fully furn., 2 baths, tennis, beach, golf nearby, Oct.-Dec. $350/wk. for BNL employees & family members. Guy, Ext. 3147 or 689-5378.

MT. HOLLY, VT - 2½-bdrm. A-frame, fully furn., kit., bath, wood stove, deck, 10 min. to Okemo Mt., lakes, boating, fall foliage, biking, horseback riding, $225/wknds., $325/wk. Tom, Ext. 2823.

For Sale

BELLPORT VILLAGE - secluded home, near golf & tennis, Fr. doors & decks, outdoor Jacuzzi, 2 bdrm., 1 w/sleep loft, 2 baths, ⅔ acre, s. of S. Country Rd., $248,000. Sue, 286-0422 after 6 p.m.

CENTER MORICHES - 4-bdrm. Col., quiet nbrhd., l/r w/fp, d/r, eik, TV & laundry, 5 baths, attach. gar., on water, 100x150, walk rr, schools, more, $166,000. Marilyn, Ext. 2259 or 878-0939.

EAST MARION - 1-acre bldg. lot, adjacent to greenbelt, walk to Sound. 325-0447.

E. PATCHOGUE - 1 bdrm., bath, eik, l/r, utility rm., det. gar., $80,000. 475-7241.

E. SETAUKET - 4-bdrm. Col., half acre, park-like lot, 2½ baths, bsmt., new siding & roof, 3VSD, $219,000. 689-8548.

LAUREL - 2-bdrm. ranch, 1 bath, l/r, eik, 1-car gar., full bsmt., new heating system, close to beach, Mattituck SD, $124,500. Al, Ext. 5128 or 727-4417.

MASTIC - 2 bdrm., 1½ baths, l/r, d/r, pantry, 1½-car gar., 160x100, $86,000. 447-6528.

MIDDLE ISLAND - Lake Pointe at Artist Lake, upper 1-bdrm. co-op, deck, cac, w/d, w/w, clubhouse, assume mortgage, $59,000 neg. Bill, 924-1346.

MIDDLE ISLAND - 2-bdrm. lakefront co-op, upper unit, clean, bright, newly painted l/r, d/r, kit., all appl., cac, gas heat, w/w, pool, tennis, clubhouse, 10 min. to Lab, $56,000 neg. 924-5282.

N. SHIRLEY - 3-bdrm. ranch, ⅓+ acre, fenced yard, new boiler, HW heater, windows, renovated contemp. kit., bsmt., igs, across from Southaven Park, mint, $112,000. Jim, Ext. 2957 or 924-7374.

RIDGE - 3-4 bdrm. ranch, great room w/cathedral ceiling, skylight, sliders, all Andersens, hardwood floors, full bsmt., shed, 1½ wooded acres, 5 min. to Lab, $145,000. Gerri, 924-0287.

RIDGE - Leisure Knoll Adult Community, 1-bdrm. duplex, cac, all appl., very close to pool, clubhouse, etc., $55,000, immed. occup. Ted, Ext. 4589 or 475-8581 eves.

ROCKY POINT - 4-bdrm. custom Col., eik, 2½ baths, den w/fp, l/r, d/r, 2-car gar., full bsmt., ⅓ acre, landscaped, $162,000 neg. 874-8631 after 5 p.m.

ROCKY POINT - brand-new, 4 bdrm, 2 full baths, full bsmt., eik, sep. laund. rm., Andersen windows, cathedral ceiling, still time to pick colors & styles, ask. $128,000. Ed, 744-2153.

ROCKY POINT - 3-bdrm. ranch, 2 baths, den w/fp, fenced ½ acre+, Andersens, gar., bsmt., $135,000. 744-4724.

ROCKY POINT - 4-bdrm. Col., 2½ baths, gas heat, cac, l/r, d/r, eik, den, fin. bsmt., gar., low taxes, ask. $140,990. Don, Ext. 7237 or 744-2921 after 5 p.m..

SOUTHOLD, new 2-bdrm. expandable farm cape, l/r, kit., 1 bath, full bsmt., excel. loc., approx. ⅓ acre w/open area, energy effic., avail. Nov., $119,500. 727-7741.

WADING RIVER - on beach, 10 rm. year-round house, 5 bdrm., 2 baths, d/r, l/r w/fp, upper/lower decks, full bsmt. w/apt. w/sep. ent., incl. adj. lot, SWRSD, $259,000. Kathy, 929-8443.

WADING RIVER - private beach road, 3 bdrm. ranch, eik, fd/r, ac, trees, bsmt., deck, lg. shed, 1½ baths, cyclone fence, ½ acre, $128,000. 744-3842.

WEST ISLIP - 3-bdrm. ranch, water view, l/r, fam. rm., f/r, eik, docking across from house, $259,950. Bill, 669-0549.

YAPHANK - Whispering Pines, squeaky-clean 3-bdrm. condo, 2½ baths, kit., d/r, fin. bsmt., new w/w, fp, 5 appl., extras galore, 5 min. to Lab, new price reduction, $108,000. J. Bennett, Ext. 5406.

NORTH CAROLINA - 1.13 wooded acres, waterfront community, pool, clubhouse, 35-boat slip on Pamlico River, $38,000. Ken, 281-5565.

WEST PALM BEACH, FL - Century Village, fully furn. 1 bdrm., bath, screened porch, clubhouse, in/outdoor pools, golf, tennis, sailing, security system, must be 55 or over, $18,500. 286-8849.

Wanted

86 FORD LTD CROWN VICTORIA - Merc. Gran Marquis, 4-dr., V-8 eng., finder's fee paid. Bill, Ext. 4312 or 281-6498.

BABY'S GATES - no older "X" style, please. Leslie, 286-7127.

BOWLER - male, for mixed league, full-time or alternate. Ron, Ext. 4715, or Ginny, Ext. 5663.

DESK - for 5-yr.old. girl. Pam, Ext. 5752.

JUNK - cars, trucks, machinery, removed free. Rich, Ext. 4986 or 589-9103.

SINGLE MEN & WOMEN - 30 yrs. + for a buffet party, Th. 11/5, food, fun, dancing. Ext. 3426 or 399-3381.

3 PEOPLE FOR BUS TRIP - tomorrow, up Hudson w/Art Society, see fall colors, 18th C. mansion, FDR's home, Churchill's art, $28 all. Liz, Ext. 2346.

NEBULIZER - reas. priced. Joann, 878-8164.

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