

BULLETIN BOARD

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September 15, 1966

ACS Nuclear Award For '67 to Friedlander

Dr. Gerhart Friedlander, Chemistry Department, will be the 1967 recipient of the American Chemical Society's Annual Award in Nuclear Applications in Chemistry.

He will be presented with the certificate and its accompanying \$1000 award at the ACS meeting in Miami next April, according to the ACS. The award is given for isotopic applications in Chemistry.

In Miami, he will present an award lecture; the title, as yet, unspecified. 7-2257-66



Another BNL Senior Scientist, Dr. Jacob Bigeleisen, received the award in 1958. The Nuclear Chicago Corporation, manufacturers of nuclear instrumentation, sponsors the award annually.

Dr. Friedlander, a Senior Chemist, joined BNL in 1948. Since then, except for appointments as Visiting Lecturer at Washington University, St. Louis, and at the Weizmann Institute of Science in Israel, Dr. Friedlander has worked in the chemical effects of nuclear transformation, the properties of radioactive nuclei, and nuclear reactions.

For the past dozen years, he has focused his interests toward the interactions of complex nuclei and high-energy particles.

In addition to his research papers, Dr. Friedlander coauthored the 1955 and 1964 editions of *Nuclear and Radiochemistry* with the late Professor J.W. Kennedy, and with Professor J.M. Miller, respectively. Since 1958 he has been Associate Editor of *Annual Review of Nuclear Sciences*, and this year he was appointed a member of the Advisory Committee for Oak Ridge National Laboratory's Chemistry Division.

Dr. Friedlander, a man of eclectic interests, is an active member of the BNL Theatre Group. Last spring, he directed its production of Shaw's *Heartbreak House* and received excellent reviews.

Mens sans in corpore sano is a contradiction in terms. No sane man can afford to dispense with debilitating pleasures; no ascetic can be considered reliably sane. —A. J. Liebling

Dig We Must

Digging began along Brookhaven Avenue this week as part of the program to bury all overhead power and telephone lines.

When the lines are in, the telephone poles will come down.

Architectural Planning said that this is part of a continuing program to bury all the overhead lines on site. Exposed lines and their accompanying poles cause maintenance problems that can be eliminated by running the lines through buried ducts, they said. The digging will go on in progressive stages along Brookhaven Avenue from Upton Road to Center Street for two more weeks.

Ball of Light May Play Role in Power Production

The flash of light commanding the attention of James Powell of the Nuclear Engineering Department was produced by molecules, supersaturated with energy, giving off the excess in the form of light.

These excited or "metastable" molecules remain excited about a second after being brought to the high-energy state by a 75 megacycle radio frequency arc.

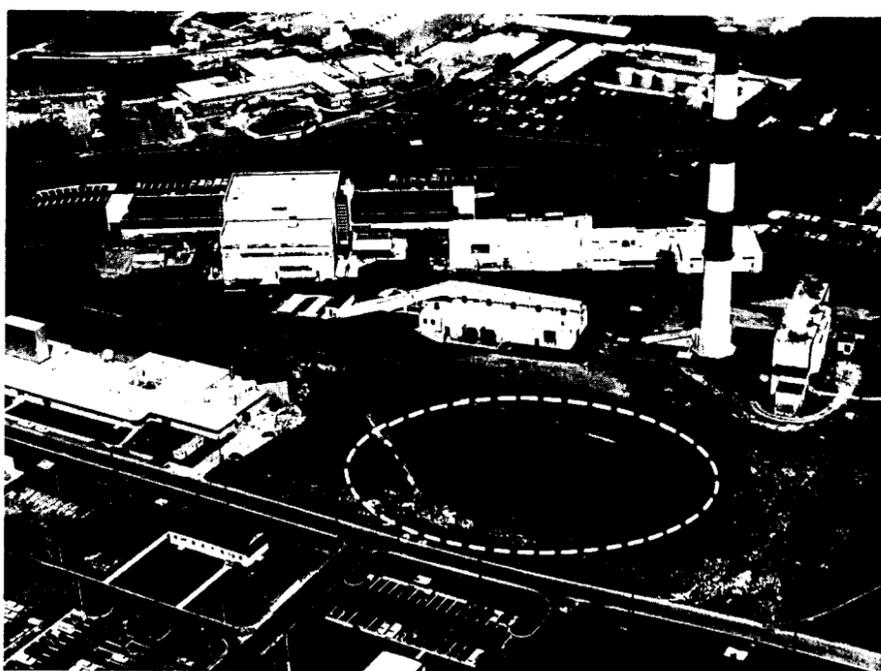
Mr. Powell is studying the characteristics and energy levels of the metastable molecules with an eye toward their use as an agent to convert gas into plasma in a Magnetohydrodynamic generator.

An MHD generator is one of several methods, currently being ex-



EXCITED MOLECULES in a metastable state release excess energy as James Powell watches —Photo by Bob Walton

Sign Pact for \$3 Million Building To House New Van de Graaff System



THE LARGE CIRCLE in the foreground is approximately where the \$12 million tandem Van de Graaff accelerator system is going to be built. The machine, to be operational in 1970, will broaden the experimental programs in nuclear structure. The smaller circle in the upper left marks the scene of a construction project to expand the AGS building. This expansion is part of the \$47 million program before Congress to revamp the accelerator so as to provide a greater beam intensity and higher pulse frequency.

—Photo by Bob Walton

With the signing of a \$3¼ million construction contract this week, the program to provide the Laboratory with the world's most powerful tandem Van de Graaff accelerator system moved into high gear.

The contract, between the AEC and Starrett Brothers and Eken of New York, calls for a building to house

two 20-MeV tandem Van de Graaff Machines, a control room, four experimental rooms, equipment rooms, labs, and offices.

Present plans call for construction to begin now and to be completed in 1968. The two machines, being built by High Voltage Engineering Com-

See Pact, page 2

planned, to convert the energy of heat directly into electric current without first going through a phase of mechanical action.

In common electricity-producing systems, the heat source provides motive power for a mechanical device which rotates a coil of wire through a magnetic field to generate electric current. In a MHD system, a gas is heated to a state in which the electrons are no longer bonded to the atoms; this plasma expands through a magnetic field creating the electric current.

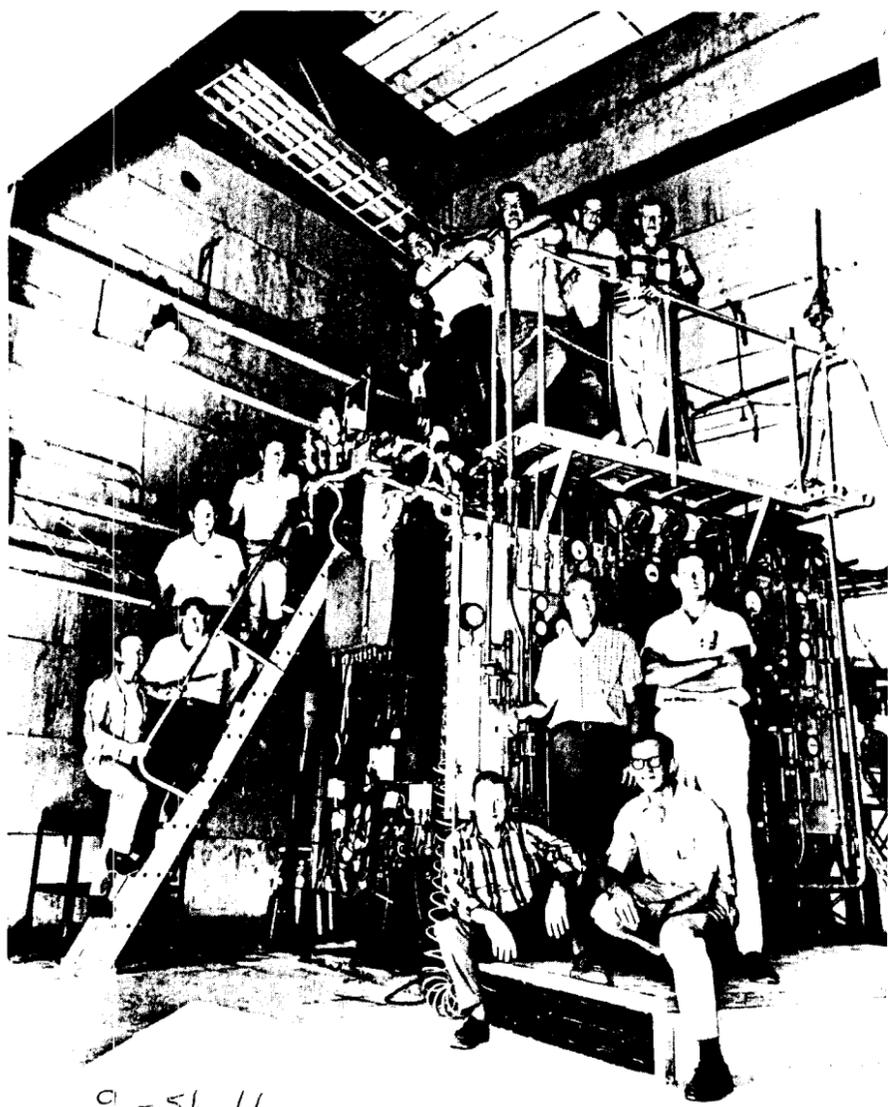
There is no intermediate mechanical step — no generator, no rotating shaft, no bearings, no heat loss.

Scientists feel that a closed-cycle MHD generator operating at temperatures of 4050 degrees F. input, and 2800 degrees F. outlet might be 50 or 60 per cent efficient in using available heat. This compares with 40 per cent for modern coal-fired power systems and about 35 per cent for power reactors with steam-driven turbogenerators.

As was brought out at an MHD conference in Vienna in June, one of the big factors in MHD generators used with nuclear reactors is the high temperatures needed to ionize the conducting gas. At the Dragon Project (a high-temperature, gas-cooled power reactor), fuel elements have been tested at 3500 degrees F. for

See Light, page 2

30-Inch Bubble Chamber May Have Record



Unless communication from Berkeley indicates otherwise, the 30-inch Bubble Chamber Group will claim the world's record number of bubble chamber photographs taken in a single year. With three-man shifts on duty 24 hours a day, 7 days a week, 52 weeks a year, the 30-inch Group took 2,939,351 photos of particle tracks – the three million mark was passed in a year and four days.

The almost-three-million 35 mm pictures show the tracks left by nuclear debris caused by collisions between highly-accelerated particles from the AGS and target nuclei. The fragments shower into a chamber filled with liquid hydrogen, leaving a wake of bubbles. These wakes in the liquid hydrogen appear on the film and provide the physicist with a record of the nuclear event. The past year's record number of photos provided data for 11 experiments, most notably, the Franzini research on particle symmetry and Dr. Maurice Goldhaber's work with neon added to liquid hydrogen.

Dr. Al Prodell, the physicist who heads up the 30-inch Bubble Chamber Group and who refuses to assert full claim to the record until all quarters are heard from, said that the record number of photos was a testament to the good working relationships among the crews who operate the AGS, the beam separators, and the bubble chamber.

Here, lined up *Life Magazine* fashion, are all the crew members, and in the neighborhood when the picture was taken, there were many others. From the left, going up the ladder, stand: Don Andrews, Mechanical Technician; George Radlhammer, Electronics Technician; Dick Majestic, Technical Supervisor for Electronics; Walt Lundgren, Electronics Technician; Stan Staron, Crew Chief; Tony Wisowaty, Crew Chief; John Mazzeo, Mechanical Technician; Dale Norden, Crew Chief; and Frank Kluska, Mechanical Technician.

In the front group at 7 o'clock, is Frank Pechar, who heads up the chamber's operations; at 11 o'clock, Dr. Prodell; at 2, John Koehler, Design Engineer; and at 5, Herb Hildebrand, a Tech Specialist.

Photo by Bob Walton

Patchogue Sets Dates For Adult Ed Courses

Registration dates for Patchogue High School's Adult Education Program are September 26 through 28. Classes begin on Monday, October 3,

and meet once a week for 10 weeks. With one or two exceptions the fee is \$7. Catalogs are available from the Office of Scientific Personnel.

Sign Pact

Continued from page 1

pany, will be installed in 1970. Congress has authorized \$12 million to cover the costs.

A tandem Van de Graaff, named after the man who built the first model many years ago, works on the principle that charged particles, positive or negative, are attracted toward an opposite charge and repelled by a similar charge. The machine consists of a central high voltage terminal, connected to two accelerator tubes. These tubes extend horizontally from opposite sides of the terminal. A submarine-shaped pressure tank 80 feet long encapsulates the device.

To produce positive particles at 20 MeV, the terminal is charged to 10 MeV. Negative particles injected at one end of the tube are attracted by the positive charge and accelerated to 10 MeV. As they cross the terminal, the particles are stripped of electrons

leaving them positively charged. They now have the same charge as the terminal and so are repelled down the second tube picking up another 10 MeV of energy. At the end of the machine, the 20-MeV positive particles are directed through beam pipes and magnets to experimental targets.

BNL's two 20-MeV machines can be used as two separate accelerators or connected together to deliver protons at energies up to 30 MeV. Heavier particles can be accelerated to hundreds of MeV in energy.

Once it is operational, the new system can broaden the capabilities of nuclear-structure research, according to Dr. Harvey E. Wegner, Project Manager.

Dr. Wegner also said that the advantage of the new accelerator over other types of accelerators at hand is that it can be easily adjusted to precisely deliver many different beams of exact energies; and that unlike the cyclotron, it delivers a steady, rather than a pulsed beam – a feature that is very important in many types of experiments.

Ball of Light . . .

Continued from page 1

three weeks with no serious damage, the Vienna conference was told. The consensus at the conference indicated that there were problems to overcome in the areas of fuel element design before reactor/MHD generator power is a commercial practicality.

Mr. Powell's experiments are directed toward eliminating the high temperature problems that go with current reactor/MHD devices.

As he sees it, the molecules that are now excited by the RF arc in the laboratory could be brought to a metastable state by fission fragments from a reactor. The metastable atoms would be drawn off and used to knock the electrons off the atoms in the conducting gas, and ionization would be achieved at 1800 degrees F. lower than if heat were used directly, he said.

Undelivered Mail

The BNL Mail Room (Bldg 179, Ext. 565) is holding undelivered mail for the following:

- D. Housing
- Dr. H.O. Monson
- Dr. Filippo Buscaglione
- H.A. Voy-Vanderhaan
- A. Kaltz
- N. Feltmane
- M. J. Gelligan
- Mrs. S. Mayerhofer

Unclaimed mail will be returned to the sender after one week.

Tuition Refunds

Requests for approval of tuition refunds must be forwarded to the Assistant Personnel Manager before the start of the fall semester.



TAKING THE KICKOFF, the Panthers' Marshall Jones starts upfield as the Hot Lab's Jack Brennan moves in for the tag.

9-62-66

Football Notes

by Jack Brennan

The second week of the season produced two tight overtime games. Pinned down deep in home territory late in the overtime period, K. Stevens

9-599-66



ANYBODY'S BALL - You can't tell the offense from the defense as two from the Bubble Boys and two from Chemistry scramble for a pass. Chemistry won by a touchdown in a tie-breaking overtime period. —Photo by Doug Humphrey

tossed a 55-yard touchdown pass to J. Leventhal enabling Chemistry to upset the Bubble Boys, 36-30. H. Haller scored 3 touchdowns for the Bubble Boys.

In the second overtime contest, short passes and S. Feldberg's safety squeaked the Hot Lab to a win over the Dirty Sox, 13-12. B. Crockett scored 2 touchdowns for the Hot Lab. The Heavers beat the Panthers, 18-12, as W. Reams passed for 2 touchdowns and scored once. N. Roberts threw for seven touchdowns and J. Hooper scored 4, as the Batmen crushed the Charged Particles, 48-0.

	W	L
Heavers	2	0
Chemistry	2	0
Hot Lab	2	0
Bubble Boys	1	1
Batmen	1	1
Charged Particles	0	2
Dirty Sox	0	2
Panthers	0	2

Film Study Group

Those interested in working on the Brookhaven Film Study Group, please send their name and extension and the best night for a meeting to H. Lyman in Medical.

In Sumeria the priests were also what we would call the scientists, engineers, physicians, and the guardians of skills and crafts. They were the "non-producers."

—Leonard Cottrell:
The Quest for Summer

Last Chance For "Hotel Paradiso"

Final tryouts will be held Thursday, September 15, at 8 p.m. and Friday, September 16, at noon in the Theatre. Anyone interested who cannot manage these times or anyone wanting further information, should call Ext. 7652 or Ext. 602.

Mull Future Plays

The Theatre Group's Play Reading Committee is considering plays for future production. If you have a favorite drama, comedy, or musical that you would like to see presented, or you are interested in directing, please notify J. Friedman, 61 Brookhaven Avenue. The committee will be glad to consider the play for recommendation to the Theatre Group Membership.

Theatre Group Meeting

The next general meeting of the BNL Theatre Group will be held on Wednesday, Sept. 21, at 8:30 p.m. in the Theatre. The program will consist of a short business meeting followed by a prepared reading of "A Phoenix Too Frequent" by Christopher Fry. Everyone is invited.

Expectant Mothers' Classes

A new series of classes for expectant mothers will start Thursday, September 15. They will be held weekly from 1 p.m. to 3 p.m. at the Suffolk County Health Center, 15 Horseblock Place, Farmingville.

The classes will be conducted by Mrs. Bette Leventhal, Public Health Nurse of the County Department of Health. For more information, call the Health Department, 732-0400, Ext. 854.

Naval Reserve Lecture

The Naval Reserve Research Unit, meeting on September 21, 7:30 p.m., at 20 N. Technology in the Conference Room will hear H.B. Hallock speak on "Earth-Based Analysis of the Lunar Surface." All are invited.

**USNR RESEARCH CO. 3-9
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. YA4-6262 EXT. 591**

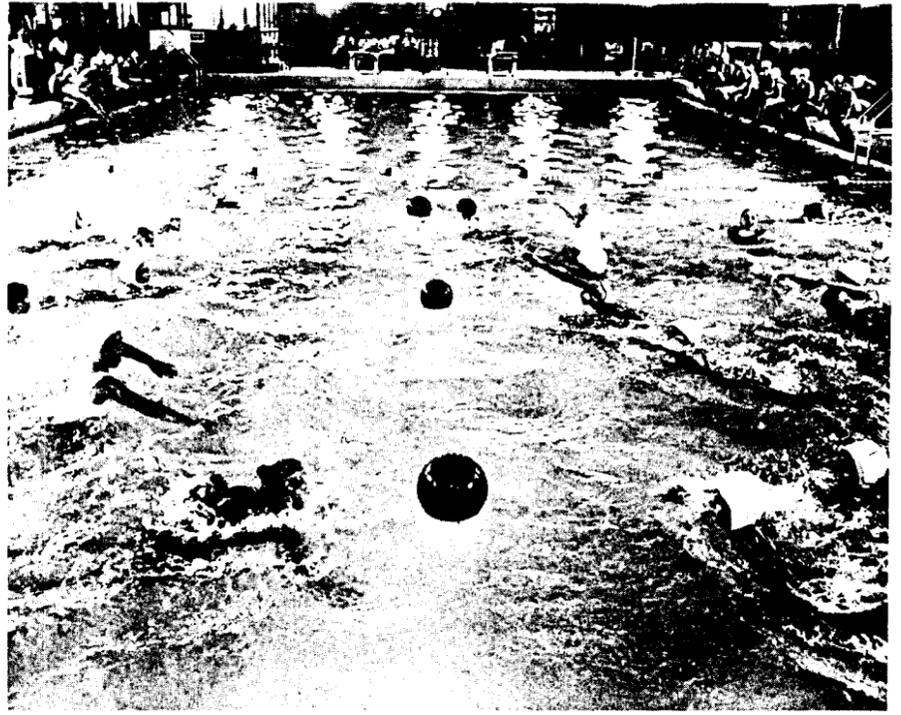
DRILL SCHEDULE

FOR QUARTER ENDING 31 DECEMBER 1966

19 OCT.	HUNTING OF QUARK (BNL LECTURE)	R. ADAIR BNL
26 OCT.	MARINE ORGANISMS LEADERSHIP LECTURE	E. ERNST THREE VILLAGE H.S. LT. P. HEIM
9 NOV.	*DASH WEAPONS SYSTEM	CDR. JOHN JAMES (GYRODYNE)
16 NOV.	GAMMA RAYS	B. MANOWITZ BNL
30 NOV.	EXTRACORPOREAL IRRADIATION OF BLOOD ONR CURRICULUM	CAPT. E.P. CRONKITE BNL LT. J. MOONEY
7 DEC.	ATLANTIC BOAT CROSSING UNIFORM DRILL	C. RASEMAN, M. SMALL AND W. EICHACKER

*@GYRODYNE

Children's Summer Program Ends With Rollicking Splash Party



WAR BALL - An event in the children's splash party.

—Photos by Doug Humphrey

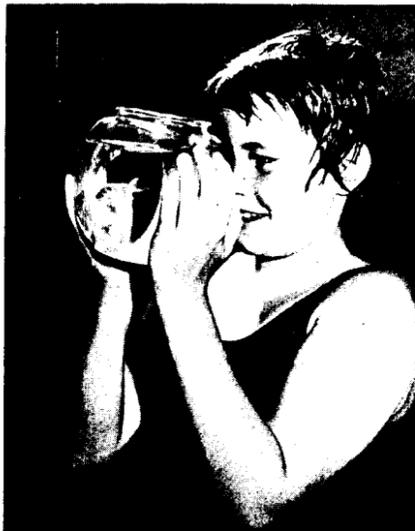
A giant Splash Party for swimming class members and on-site morning program participants served as a finale for the Children's Summer Recreation Program.

Novelty events of a varied nature provided the fun; BERA provided the prizes and candy. Every child, and they numbered about 150, left the pool after three hours of festivities with a smile and something in the way of a prize - bubble gum, lolly-

pops, hard candy, chocolate bars, games, and party favors.

Events included: balloon blowing, inner tube racing, fetching pennies, plate race (push plate across pool without use of hands), "diving" watermelon contest, and others.

The instructors, Kathy Burke and Tom Binnington, and the lifeguards, Jere Austin and Kirk Ridgeway, were hosts and judges, and mothers assisted in making the party a huge success.



THE GRAND PRIZE - Ann Keating, age 10, daughter of Dr. David Keating, Physics, and the party's grand prize of two live goldfish she won for her close guess of the correct number of peanuts in a bowl. She said 407; the total was 410.

Family Camping Club

The first fall meeting of the Brookhaven Family Camping Club will be held in the Recreation Hall on Thursday, September 15, at 8 p.m. to greet new members who joined during the summer and to nominate candidates for offices for next year. Please try to attend.



AND THEY'RE OFF - The object is to get across the pool first with the Ping-Pong ball still on the spoon. The lad in the foreground looks somewhat skeptical.

Classified Advertisements

Autos, Auto Accessories

63 PONTIAC - Catalina Coupe, blue & white, very good shape, auto trans, power steering. \$1200. Bill, Ext. 2152.

58 CHEVROLET BISCAINE 6 - Auto trans, good running cond, body worn. \$100. L. Mingino, Ext. 2296.

HUBCAPS - Spoked, four '65, Oldsmobile, originally \$87. \$40. R. Bennett, Ext. 7782.

62 VOLKSWAGEN - Sedan, blue, radio, top cond, regular maintenance, 40,000 mi. \$800. J. Detweiler, Ext. 7104, AT9-1989.

62 PONTIAC CATALINA - 2 dr hardtop, ps/pb, good cond. \$650. 732-9384 after 5.

65 OLDSMOBILE - F85 de luxe 8, station wagon, full power, low mileage. \$2190. GR5-7278.

SUN TACHOMETER & DWELL METER - Good cond. \$25. Ext. 423.

61 DAIMLER - r/h, convertible, SP 250, red, must sell. \$800. Mice, Ext. 323.

58 PONTIAC CHIEFTAN - Pink/white, 4 dr, ps/pb, r/h, w/w. Excel cond. \$375. Harty, YA4-6997.

58 MGA - Low mileage. \$650. Ext. 2533.

59 FORD - Std shift, V8, good transportation. Marie, Ext. 7654.

60 FORD FAIRLANE - Auto trans, 6 cyl, runs well, inspected Aug 18, avail Sept 21. \$170. R. Kuoppamaki, Ext. 2586. 7621.

58 VOLKSWAGEN - Runs well, best offer wins. Moore, Ext. 2869.

SAAB - Spare parts kit. Regularly \$19.95. \$10. Tom, Ext. 2971.

51 CHEVROLET - Good running cond. \$50. Tom, Ext. 2971.

64 VOLKSWAGEN - Sedan, blue, very good cond, fully equipped. Chanana, Ext. 2894, 2971, 510.

65 OPEL KADETT - Fully equipped, excel cond, economical. 281-5984.

63 MGB - Black, clean, wirewheels, radio, tonneau, motor good. \$1175 or best offer. G. London, Ext. 7626.

56 FORD - 2 dr sedan, reliable transportation. \$75. Weeks, Ext. 346.

55 CADILLAC - 57' engine, new tires, must sell. \$100. LT9-7504.

57 FORD STATION WAGON - Good cond, 9 passenger. \$175. D. Papa, Ext. 2304, 281-3616.

58 PONTIAC - 2 dr sedan, V8, no repairs needed, inspected. 281-5418 after 5.

64 HONDA - 150 cc, low mileage, original owner. PA7-4697 after 6.

63 CORVETTE STING RAY - Fast back, 4 speed trans, 340 hp. Sawner, Ext. 2448.

65 FORD - 500 XL hardtop, red w/white int, 17,000 mi, excel cond, take over payments. 744-8949.

64 VOLKSWAGEN BUS - Model 221, rigged as camper, new engine, guarantee. P. Ettari, Ext. 2407, 273-6436.

62 RAMBLER - Classic station wagon, 6 cyl, auto, r/h, snow tires, trailer hitch, clean, 32,000 mi. G. Kinne, Ext. 7115.

61 RAMBLER - 4 dr, std, 6 cyl, blue, good cond. B. Downing, Ext. 2314, 281-9241 after 5:30.

55 CHEVROLET - 310 cu in, aluminum bell housing scattershield, close ratio 3-speed Hurst, body rough. R. Evans, Ext. 2198, 289-0532.

60 RAMBLER AMERICAN - 4 dr, std trans, good tires, new muffler. \$130. D. Rorer, Ext. 541.

61 CORVAIR - 4 dr sedan, runs, body good, mech fair, good for spare parts. H. Peter, 473-8707 after 6.

56 PLYMOUTH - Reliable transportation, will run. \$60. Ext. 7637.

Boats, Marine Supplies

18' SHELTER CABIN OUTBOARD - 40 hp Evinrude, accessories. \$375. George, Ext. 7756.

16' COMET SAILBOAT - Excel training boat, must be seen to be appreciated. \$375. EM3-6895.

62 MERCURY - 45 hp, remote controls, gas tank, excel. \$280. Ext. 7638, 727-1933.

19' GARVEY - '60 35 hp Gale outboard. \$450. GR5-5744.

20' CHRISTIAN SEA SKIFF - s/s radio, head, elec bilge pump, 95 Chrysler engine, A-1 shape. \$850. 281-7665.

14' THOMPSON RUNABOUT - 35 hp Evinrude, elec start engine, Gator trailer and accessories. \$500. PA7-4697.

17' MOTOR BOAT - 30 hp Evinrude, plywood, fiber glass V bottom, excel cond. \$450. Katcoff, Ext. 621, GR5-8635.

13 1/2' CATBOAT - Wood pussy, completely fiber glassed, dacron sail, trailer, 3 hp longshaft outboard, great boat for kids or beginners. Ext. 435.

16' OPEN BOAT - Forward deck, windshield, controls, all accessories, 18 hp Evinrude. \$200. Gilliam, JU8-5833.

Miscellaneous

MISCELLANEOUS - Girl's blonde crib, spring & mattress, \$35; child's metal fold table & 2 chairs, \$5. M. Petruk, AT6-0124.

MINATURE FRENCH POODLE - Female, 1 yr, cocoa w/papers, AKC registered. Best offer over \$75. AT6-8398 after 6.

DOLL HOUSE - Girl's metal Colonial, \$2. M. Petruk, AT6-0124.

DISHWASHER - RCA Whirlpool portable, new. L. Hamilton, Ext. 7133.

ELECTROLUX & ATTACHMENTS - Old but good working cond. \$15. Ext. 7143, 281-8390 after 5:30.

REFRIGERATOR - Frigidaire, 13 cu ft, works well. \$25. L. Hamilton, Ext. 7133.

BOOKS - The World of Math, \$2.50 each volume; Webster's Collegiate Dictionary, \$2; Vega's Logarithmic Tables & Trig Functions, \$3. E. Windschauer, Ext. 2218.

FREEZER - 18 cu ft, excel cond. \$85. S. Pace, AT9-0837.

BOOKS - Introduction to College Chemistry, \$2; College Physics, \$2; Practical Descriptive Geometry, \$1.75. E. Windschauer, Ext. 2218.

MACHINIST TOOLS - Mauser Vernier 6" w/wood case, quick adjust Starrett caliper, V-blocks, parallels, square, 6" scale. Ext. 2536.

3. Ads must be typed or printed on the form provided in 20 words or less, and must be received by 12:00 noon on Friday for inclusion in the next week's newspaper. Only ads submitted on this form will be accepted. Additional copies of the form are available in *The Bulletin Board* office. If there is no Lab Extension where the person may be reached, a home phone may be substituted. Ads which do not conform to the above standards will be discarded.

4. Ads are run on a space-available, first-come-first-served basis; ads not carried because of space reasons will be held for inclusion in the next issue.

5. Ads are run only once; if you wish to repeat an ad it must be resubmitted.

PLAYPEN - Hardwood, good cond. \$10. G. Goodwell, AT6-0798.

POODLES - AKC, black, male or female, docked, dewed, wormed, shots, born Aug 1, ready to leave mother. S. Garrett, Ext. 2123.

MISCELLANEOUS - Crib, \$22.50; baby carriage, \$12.50; excel cond. A. Burroughs, 744-2405.

BICYCLE - Men's, 26" Royce Union, excel cond, new shifting mechanism. Steve, YA4-6139.

2 LARGE PONIES - \$200. Pat, YA4 6337.

CAMERA - Single lens Reflex Exa II, Domiplan 2.8 auto lens, complete w/case. New cond. \$35. Ext. 591.

TRAVEL TRAILER - 16' Shasta 1964, sleeps 6, fully equipped, excel cond. E. Thompson, AT6-8734.

MISCELLANEOUS - Rug, 12'x16', rose color, \$35; black angus rotisserie, \$10; 10 piece oak dining rm set, \$100. H. Petersen, AT6-1366.

RIFLE - Remington pump, shoots 300 Savage bullet, w/weaver K-4 scope. Steve, Ext. 7677, 878-0761.

FURNITURE - Living rm couch, 3 chairs, 3 tables, lamps. Buy of a lifetime. Must see to believe. 286-8108.

BEAGLE - Male, yr old, registered stock, very desirable pet, gentle w/children, sired once, excel breeder. \$50. Ext. 7254, GR5-7589.

STEREO AMP & PREAMP SYSTEM - Scott preamp, Harmon-Kardon Citation II 60 watt amp. Cost \$400. \$200. Guaranteed. P. Lieberman, Ext. 7266.

AMPLIFIER - 15 watt utralinear hifi monophonic amplifier, can power preamp. \$25. Guaranteed. P. Lieberman, Ext. 7266.

CRIB & MATTRESS - Maple, good cond. \$15. S. Ho, Ext. 628.

TWEETERS - 2 from acoustic research speaker system. \$10. P. Lieberman, Ext. 7266.

FOOD FREEZER - United Harvest Queen, 13 cu ft, like new. \$225. LT4-7504.

MISCELLANEOUS - Guitar, good cond, \$18; archery bow, 30 lb recurve, \$12. N. Schinn, Ext. 2706.

TV - Motorola, Model 66, new. \$95. J. Bocquet, Ext. 7262.

BOOKS - The Recent Encyclopedia of Photography, complete set of 20 volumes, reasonable price. Jeeva, Ext. 2427, 281-8876.

ARGUS CAMERA - Autronic #1-35 mm w/flash attachment. Like new. Originally \$100. \$55. H. Lobe, Ext. 2248.

DRAPES - One pair, 63", fiber glass, Colonial print, brand new. \$5. E. Holz, Ext. 7798, AT9-1971 after 5.

CAMERA OUTFIT - Kodak Hawkeye w/flash, 2 rolls Kodacolor & 1 roll B&W film, uses 127 film. \$7. John, Ext. 2149.

MODEL RADIO CONTROL SYSTEM - FM, Matador-Midas combination, 5 servos, all transistorized, 6 meter frequency. \$100. P. Buhl, Ext. 354.

CARRIAGE - Biltrite w/mattress & netting, excel cond. \$30. Sisson, HR3-4319.

KIRBY VACUUM - All attachments inc, 3 mo old, used once, perf cond. \$200 w/lifetime guarantee. 724-3794.

LARGE ROCKING HORSE - 4 spring type, good cond. \$6. De, Ext. 2221, 589-4874.

MEN'S GOLF CLUBS - 3 woods, 6 irons, 1 putter, bag. Good cond. \$30. De, Ext. 2221, 589-4874.

MUSICAL INSTRUMENTS - Clarinet, 8 b, \$60; guitar, amplifier & microphone, complete, \$60. Anne, Ext. 388, SH4-6645.

For Rent

APARTMENT - 3 large rms, 3 mi from Lab, private entrance, parking area, adults. \$80/mo. Flack, Ext. 7245, 732-7846 after 6.

ROOMS - 3 mi from Lab, furnished, quiet, private entrance & parking area. Single persons preferred. Flack, Ext. 7245, 732-7846.

APARTMENT - 15 min from Lab, 3 large rms, all new, unfurnished, private entrance. \$100/mo w/util. M. McAllister, SE2-9168.

STUDIO APARTMENT - Mastic, near post office, shopping. 6 mi from Lab. Equal to 4 rms. 281-5217.

HOUSE - 5 mi from Lab, south of Wading River, furnished, 5 rms. Avail Nov 1. \$90/mo. L. Yemin, Ext. 2515, 2420.

STUDIO APARTMENT - Huntington area, furnished, private entrance & patio, all util. \$85 for 1, \$95 for 2 per mo. HA7-1381.

APARTMENT - Shirley, 5 min to Lab, new efficiency, private entrance, furnished, all util. 281-8044.

HOUSE - Patchogue, 6 rms, unfurnished, garage, large yard, good residential, near schools, RR station, beaches. GR5-9236.

APARTMENT - North Shirley, 5 min to Lab, 4 large unfurnished rms, ample closets, stove, refrigerator, rent inc util. YA4-6826.

HOUSE - Mastic Beach, 4 rms, 2 bedrms, carpeted throughout, balcony, fenced in yard, avail immediately. Lease. 281-8910.

HOUSE - East Patchogue, 12 mi from Lab, furnished, 2 bedrms, avail Sept 20. A. Avni, Ext. 651, 475-1510.

Houses

MILLER PLACE - 3 bedrm ranch, fireplace, 2 baths, finished basement, garage, 1/2 wooded acre. Low interest FHA mortgage. 473-9543.

SHOREHAM - Take over 5 1/4% FHA loan on 3 bedrm ranch w/garage, full basement, well located for children. 744-3235.

PATCHOGUE - 3 bedrm ranch, paneled, carpeted, patio, garage, basement, s/s, fenced, landscaped, Lab employees both sides. \$15,500. Bill, GR5-5514.

HUNTINGTON - 7 rm Cape, tall trees, picture lawn, shrubs, raised hearth fireplace, paneled living rm, playhouse, garage, basement. \$26,800. HA1-4498.

SMITHTOWN - 3 bedrm hi-ranch, living rm, dining rm, 2 car garage, basement, s/s, fenced, landscaped, sidewalks. Occupancy June 67. AN5-6483.

BAYPORT - 4 bedrm ranch, screened porch, living rm, fireplace, 2 baths, garage, basement, 1/2 acre in beautiful section near Bay. Ext. 414.

SAYVILLE - 3 bedrm ranch, rec rm, living rm, fireplace, garage, full basement, 1/2 treed corner acre. \$17,800. 589-6752.

Wanted

BABYSITTING JOB - Ridge resident, local, ideal for families living on Lab site. Avail Fri nights & weekends. W. Betz, YA4-3236.

PEOPLE TO HELP STAMP OUT FRACTIONS - Join the Metric Association. Write to MA, 2004 Ash, Waukegan, Illinois.

DOUBLE BARREL SHOTGUN - 12 or 16 gauge, prefer European make. Andy, Ext. 7257, AT1-7820.

GIRL'S ICE SKATES - Size 1 or 2. Fuchel, Ext. 2446.

12 GAUGE SHOTGUN SHELLS - Will swap 1 box 10 gauge for 1 box 12 gauge. H. Richardson, AT6-8610.

ROTO TILLING - Save your back! Carl, Ext. 7440, YA4-3528 after 6.

BABYSITTING JOB - Reliable woman to take care of infant in my home from 8 to 5:30. Ext. 7136.

HOME FOR LARGE BLACK DOG - Altered, had shots, 10 mo old, good w/children. Labrador Retriever type. Ext. 2179.

BABYSITTING JOB - At our home in Shirley, 15 min from Lab. Reasonable. Mrs. Jeeva, 281-8876.

HOMES FOR KITTENS - 2 all white, 1 grey, 1 tiger love children, box trained. Will deliver. Ext. 2200, 751-0023.

HOME FOR KITTEN - 6 wks old, female, gray tiger, gentle, will deliver. Cottingham, 878-0926.

Carpools

DRIVER - For established carpool, Bayport-Bluepoint vicinity. Marion, Ext. 462.

RIDER-DRIVER - To complete 4-man carpool from Babylon-West Babylon area. Danny, Ext. 470.

2 RIDER-DRIVERS - To complete existing carpool from Bellport Village area. Gene, Ext. 2812.

DRIVER - To complete 5 man carpool from Patchogue between Main St. & Sunrise. C. Reed, Ext. 2182.

DRIVER - To complete 4-man carpool. Pick up at Hempstead or Wantagh (Cherrywood). Marc, Ext. 2732; Tony, Ext. 2927; Iz, Ext. 2341.

DRIVER - Wants to join or form small carpool from Port Jefferson-East Setauket area. Jerry, Ext. 2548.

DRIVER - For established carpool. East Islip vicinity. Ext. 2536.

PAYING RIDER - Needs ride to Lab daily, Boxwood Drive & Moriches Road (8 blocks East of Wm Floyd) J. Candiano, Ext. 2390.

Lost

LOST - Mature male orange tiger cat on site. Reports little help. Please apprehend. Friendly. Reward. P. Lieberman, Ext. 7266.

LOST - 2 display cases of irradiated wood samples, removed from Conference Room, HIRDL. Please return or call L. Kopp, Ext. 2719.

Classified Ad Policy:

The use of the classified section of *The Bulletin Board* is a privilege accorded to individuals employed at the Laboratory, to retired employees, and, in some cases, to the families of recently deceased employees. The following rules apply to all three classes of users (hereafter referred to as employees).

1. All items for sale or rent must be the property of an employee.

2. No want ads will be accepted for property associated with a full or part-time business. This includes merchandise, automobiles, real estate, etc., acquired for purposes of resale.

- For Sale: Autos & Auto Supplies
 For Sale: Boats & Marine Supplies
 For Sale: Houses
 For Sale: Miscellaneous

- Carpools
 For Rent
 Wanted
 Lost Found

Check the heading (1 only) applying to your ad
Print or type your listing in the space below in 20 words or less.

(Name & Phone No. To Call)

Your Name: Lab Phone Ext:

Lab Address: Signature

send to: BULLETIN BOARD, 40 Brookhaven Avenue