with the properties of liquid gases. In addition, biophysicist Humberto Fernandez-Moran is building his own section in the laboratory for his work in electron microscopy. He will attach his equipment to the ultralow system to supercool his microscopes for biological studies.

The Laboratory will have stations for general experimentation involving the use of liquid helium to cool materials to temperatures as low as three-tenths of a degree above absolute zero. Lower temperatures—to one seven-thousandth of a degree—will be obtained by means of the adiabatic demagnetization method, for which a powerful magnet is being installed.

New Labs at Iowa State

The State University of Iowa recently received contracts from the Iowa State Board of Regents for construction of a Physics Research Building and an Astronomy Research Observatory for the University's Department of Physics and Astronomy.

The proposed budget for the entire project is $1 985 000, of which $133 000 is to be used for the Observatory. The University received grants of $650 000 from the National Science Foundation and $610 000 from the National Aeronautics and Space Administration of which $954 000 will be used toward construction of the two buildings. The remaining funds were granted in 1961 by the state legislature of Iowa.

The physics building will be connected to the University's accelerator building and will house a 5.5-million-volt nuclear research device. Plans include seven floors, 35 laboratories for projects in space science, high-energy, low-energy, and solid-state physics, five conference and seminar rooms, a library, and office space for 35 senior staff members and 79 graduate students.

The Observatory, to be located about eleven miles south of Iowa City, will be a one-story structure which will be equipped with a 24-inch telescope.

Controlled Fusion Study

The University of Michigan has announced that its Department of Electrical Engineering and Office of Re-

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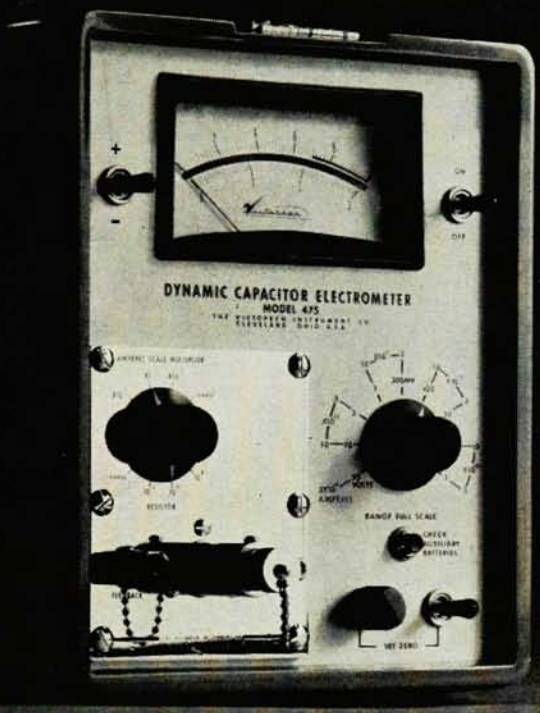

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search Administration will be responsible for the direction of a project that will involve the building and testing of apparatus to contain and heat an electron stream by means of crossed electric and magnetic fields.

The proposed experiment with electrons is intended as a model for the similar heating and containment of hydrogen in the hope that it may prove to be a useful approach in the study of thermonuclear power generation. The particular configuration of fields and particle flow to be tested is an outgrowth of research at the University on crossed-field vacuum tubes used in the production of microwaves.

The one-year project, financed by a grant of $31 250 from the Consumers Power Company in Jackson, Mich., will be carried out by a research engineer and two graduate students. An additional sum of $7600 for preliminary investigation and special equipment has been allocated to the project by the University.

Radiation Sources

A new high-intensity radiation development laboratory (HIRDL), equipped to carry out experimental programs with radiation sources in the million-curie range, was dedicated on November 22 at the Brookhaven National Laboratory. The $1.85-million facility was established as a part of the Atomic Energy Commission's Radiation Development Center at Brookhaven, where it is housed in a laboratory building that has been under construction for the past three years.

The primary aims of HIRDL are to obtain engineering data on gamma-radiation sources, to develop more efficient techniques for handling high-intensity sources, and to train scientists and engineers in the uses of such sources in research and in industrial applications. The laboratory has an irradiation cell for its experimental programs and a work preparation cell where various types of sources will be made ready for experimental use. Both cells were designed by the staff of Brookhaven's Nuclear Engineering Department. Most of the work will involve the use of cobalt-60 and cesium-137 sources.