remedy. Although the constants are not well known, the substances are widely used, and confusion in interpretation of results is a consequence.

Many of the physical and chemical properties of these substances are exceedingly interesting. For example, polonium is the only known element which has a negative coefficient of expansion with temperature. Such a property would provide a most interesting subject for investigation by persons specializing in the solid state.

Thus it is clear that many of the physical and chemical constants and properties of the naturally radioactive substances urgently require revision. This task should not be thought of as one involving mere routine measurements. Because of the unusual nature of some of these properties, the possibilities of interesting new discoveries by an alert observer are present. Further, the importance of the contribution made by someone who measures the properties accurately is constantly growing with the increased use of the substances.

In view of the great need for revised and improved constants, and also since today radioactive substances are being mined in previously unheard-of quantities, the New York Academy of Sciences has formed a Committee to stimulate work in this field. The Committee has access to considerable amounts of many differing substances, which can be made available on a gift or loan basis to investigators interested in such studies. The procedure in securing requisite amounts of substances is to outline a proposed research program, to indicate the amount of substance required, the instruments available, the personnel who expect to do the work, and to forward the proposal to the Committee. The address of the New York Academy of Sciences is 2 East 63rd Street, New York 21, N. Y. The proposal should also, if it comes from a graduate student, indicate the faculty supervision since the Committee will not approve requests unless satisfied of the critical supervision and scientific merit of the proposal. Further, assurances must be given that the recipient is qualified to handle radioactive substances and that no danger of contamination will be present. Owing to present laws, this offer is confined to U. S. citizens residing in the continental United States. The recipient will be expected to undertake publishing the results in recognized technical journals, and the New York Academy of Sciences must be furnished with copies of all reports and with rights to publish the reports at its discretion in its publications. The Academy also offers cash prizes for the best papers published in this field.

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Nuclear Data Summaries

To Appear in *Nuclear Science Abstracts*

The Nuclear Data Group of the National Bureau of Standards and the Technical Information Service of the Atomic Energy Commission are collaborating in the publication in *Nuclear Science Abstracts* (NSA) of summaries of new measurements of the following nuclear constants: half-life, radiation energy, relative isotopic abundance, nuclear moment, neutron cross section, reaction energy, and mass. Each issue of NSA, beginning with January 15, 1952, will carry such a summary of information published during the half-month period following that covered by the preceding summary. The summaries will be cumulated four times a year into large tables in which the new information for the three-month period will be arranged by element and isotope. The material is being prepared by the National Bureau of Standards group with the assistance of NSA readers.

The tabular style being used makes it possible for readers to locate quickly new values of the properties of stable and radioactive nuclei and thus to keep reference tables and compilations up-to-date with a minimum of difficulty. Because the NSA summaries will give the same kind of information as that previously published in the supplements which the Bureau of Standards group has been issuing to its 1950 compilation called *Nuclear Data*, and will make it available more promptly, the supplements have been discontinued. Initiation of revision of some sections of *Nuclear Data* is planned for 1952. *Nuclear Data*, NBS Circular 499, was issued September 1, 1950 and is available from the Government Printing Office for $4.25, which covers the large table and supplements.

International Laboratories

Progress in Planning Reported from Paris

Separate conferences to consider proposals for the establishment of an international computation laboratory and a European nuclear physics laboratory were held late last year in Paris, and it now appears likely that work on preliminary phases of both projects may soon be under way. Representatives of interested governments and agencies of the United Nations who attended the two meetings apparently were able to approach something very nearly approximating a concrete plan of action in each instance. Tentative plans have been formulated for financing the projects, good agreement has evidently been reached as to the general extent and composition of the laboratories, and in the case of the computation center, at least, a well-defined convention establishing the project has been drafted and has been submitted to the governments involved for ratification.

The conference for the establishment of the international computation center was called together on November 26th and resulted in a formal proposal that the center be situated in Rome and that it provide an international consultative and computation service for those nations participating in the project. Although at least ten nations must ratify the convention before it can enter into force, the interest thus far exhibited has been encouraging.

As now envisioned, the computation center is to be built around the Italian Institutes for the Application

of the Calculus. In addition to its service features, it has been proposed that the center should carry on a program of research on questions relating to the use and improvement of computing devices and methods. Other aspects of the program, according to the convention, will involve the study of such problems in pure science as concern computation, the promotion of collaborative and cooperative efforts among computation institutes throughout the world, the publication and distribution of research results, and the implementation of a plan for the education and advanced training of specialists in the field of computation. In carrying out these functions, it is stated, the center will endeavor primarily to meet the needs of its member states, and especially the needs of those which may have limited resources.

In terms of organization, the proposed center will comprise a general assembly, an executive council, and a scientific and administrative staff, headed by a director. The general assembly, according to the convention, shall consist of one representative preferably with scientific qualifications, of each member state of the center, and of a representative of the United Nations Educational, Scientific, and Cultural Organization (Unesco). The executive council will consist of six persons elected by the general assembly from candidates presented by the member states and will be responsible for carrying out the program for the computation center adopted by the assembly. The director, to be appointed by the assembly, will be responsible for appointing scientific and administrative staff members of the center, and in this connection it is noted that wherever feasible and possible, staff appointments will be made on a wide geographical basis.

Formation of the European nuclear physics laboratory was discussed in Paris during the week of December 17th at a special conference attended by representatives of a number of European nations. A working party was set up at that time to formulate an agreement whereby an international planning board will be formed in Geneva, Switzerland, to supervise initial stages of the project, and another meeting of the delegates was scheduled in Geneva on February 10th to approve the draft agreement.

Much of the enthusiasm shown by Europeans for the proposed laboratory seems to concern the possibility of building a particle accelerator of the bevatron type —sufficiently large, in other words, to provide energies of several billion electron volts. Suggestions have been advanced that it be a proton accelerator of at least 3 Bev and possibly up to 6 Bev. It has been pointed out that the cost of constructing such a machine would be considerably greater than any single European country is in a position to consider within the foreseeable future. At the same time, it has been indicated, there is a growing tendency among scientists abroad to consider the present American monopoly of high voltage accelerating equipment a threat to European scientific progress. While the research done by European physicists has been outstanding in both qualitative and quantitative terms, regions of research have evolved in which high voltage equipment is necessary. Lacking adequate accelerators in Europe, the European physicist must depend upon the hospitality of American laboratories and the availability of their equipment to carry on his research. The danger, under such circumstances, that normal international interchange of scientists would be replaced by a one-way flow of specialists from Europe to the United States has become a matter of serious concern to a number of European scientific institutions, it is suggested, and the only practical solution now apparent seems to require a pooling of the scientific, industrial, and financial resources of several European nations in order to provide an international research center properly equipped with modern research instruments.

Initially, however, it is anticipated that a plan will be worked out for research on a European basis at the Institute of Theoretical Physics in Copenhagen and perhaps in other laboratories in Denmark and Great Britain. The 400 Mev synchrocyclotron now under construction at the University of Liverpool is reportedly to be made available by the British for the international research project, and it has been indicated that this accelerator will be ready for operation later in 1952.

The location of the laboratory has not been decided upon, although it has been reported that Switzerland has already offered Geneva as the site, and that in other quarters a preference has been expressed for establishing the center in Copenhagen. Factors which have been declared important in choosing the site include favorable transportation facilities, the availability of sufficient manpower of all levels of skill necessary for constructing and operating the accelerator and auxiliary apparatus, the availability of low-cost electric power, the proximity of some important university, and a geographical location close to various cultural areas. The site possessing the best combination of these conditions will presumably be chosen.

AIP Governing Board

New Members Elected

Elections to the governing board of the American Institute of Physics were made known at the annual corporate meeting of the Institute on February 16, as follows: Karl K. Darrow, Bell Telephone Laboratories physicist; G. J. Dienes, physicist at Brookhaven National Laboratory; Hugh S. Knowles, president and director of research of Industrial Research Products; C. C. Lauritsen, professor of physics at California Institute of Technology; William F. Meggers, chief of the spectroscopy section of the National Bureau of Standards; George B. Pegram, vice president emeritus and special advisor to the president of Columbia University (re-elected); R. M. Sutton, professor of physics at Haverford College; and M. W. Zemansky, professor of physics at City College of New York. Members whose terms of office have expired are: J. W. Beams, C. Paul Boner, W. R. Brode, W. F. Fair, Jr.,