

ing with molecular spectra in emission and absorption, molecular spectra in the ultraviolet, the visible, the near, and the far infrared, and in the microwave region. It will also contain contributions on Raman spectroscopy and radiofrequency spectroscopy (including nuclear magnetic resonance spectroscopy). Manuscripts dealing with both the experimental and the theoretical aspects of molecular spectroscopy will be welcomed.

It is planned to publish volume 1, consisting of four issues, during 1957. Volume 1, number 1, is scheduled for release in June. For subscription information about both journals, write to Academic Press, Inc., 111 Fifth Ave., New York 3, N.Y.

Hungarian Scientists

Some of Hungary's best younger scientists are among the approximately 25,000 refugees who have passed through the American reception center at Camp Kilmer, N.J., in the past 2 months. Approximately 500 men and women with degrees from Hungarian universities have been screened by a National Academy of Sciences group that is led by Wallace W. Atwood, head of the academy's office of International Relations [*Science* 125, 187 (1 Feb. 1957)]. Many of the refugees have doctorates or have made considerable progress toward advanced degrees. The job of the screeners is to assess the qualifications of these specially trained people and find appropriate places for them in this country.

The engineers present no problems. Representatives of industry literally wait at the camp to hire them. However, other specialists, few of whom speak any English when they reach here, might well go unrecognized for a long time if they were left entirely to their own resources. But, through the work of the NAS group, some have been placed at once on staffs of universities and organizations like the Rockefeller Institute, the U.S. Department of Agriculture, and the National Institutes of Health.

The refugees, many of them former "freedom fighters," are of high caliber. Besides the graduates, there are many who have completed 2 or 3 years in Hungarian colleges. Others are expert mechanics and technicians. The college undergraduates are being screened by the World University Service, which tries to evaluate their education in our terms and secure scholarships for them.

However, the National Academy of Sciences is immediately concerned only with those who hold degrees or who have recognized professional status. Well-paid positions have been found for more than 100 people in this category. The quality

of these specialists and the efficiency of the screening process is indicated by the fact that so far there have been only two job changes. These two shifts were not caused by failure but by the refugee's desire to specialize in a certain line.

Most of the Hungarian scientists are quite young, for the average age of the escapees as a whole is only about 25. In such a group, there are of course no internationally known names. For the most part, older men of recognized distinction have remained in Hungary or have sought refuge in European countries where they have academic associations.

For the screening process it has been possible to organize a group of scientifically qualified Americans of Hungarian birth. Charlotte Ferencs of Johns Hopkins University screens the physicians and biological specialists. The former, regardless of qualifications, are difficult to place because of American laws on licensure to practice. With some, however, there has been no difficulty. One radiologist was recognized by American specialists as an outstanding man in his field. An orthopedic surgeon was a university professor until he fell afoul of the Communist regime 10 years ago. The Rockefeller Institute had a place immediately for a specialist in the chemistry of muscle. A neurophysiologist husband-and-wife team fitted into the research program of the National Institutes of Health. The same organization had a job ready for a cardiovascular physiologist.

Several in the medical group have already done part of the postgraduate work necessary to qualify as specialists. The screening committee is trying to obtain fellowships for them so that they can complete their training in this country.

One of the most colorful members of Atwood's group at Camp Kilmer is Maria Steller, a specialist in jurisprudence who escaped from Hungary years ago during the Nazi period. Since her field of interest has made it difficult for her to find an appropriate place in American life, she has a particular understanding of the problems likely to be encountered by her countrymen. Therefore, she has concerned herself with the rather large number of refugees who hold advanced degrees that are not in the physical or biological sciences. In this connection, apparently very few refugees with doctorates in literature want to come to the United States, for an international literary center is being built up in Montreal. They all want to go there where they can associate with poets, novelists, artists, and the like, from all the oppressed countries.

Nearly all the scientists among the refugees speak two or three languages with reasonable fluency; however, few

have any knowledge of English, because contact with English-speaking countries has been almost completely outside their experience. This at first appeared to be a serious placement handicap, and it was decided that no one should leave Camp Kilmer unable to carry on some kind of conversation in our native tongue.

As a result an unusual educational experiment is under way in cooperation with Rutgers University, whose campus nearly adjoins the camp. The refugees are housed in a special dormitory where they are drilled in English for 5 hours a day by Rutgers faculty members who do not know any Hungarian. The course lasts for 8 weeks, at a cost of about \$600 per person. Funds are provided by the Ford and Rockefeller foundations. After the first 4 weeks most of the students are able to conduct at least an elementary conversation.

Cellulose Research Institute

A new venture into fundamental research, a partnership between industry and the academic world, has come into being with the establishment of the Cellulose Research Institute at the State University College of Forestry at Syracuse University, Syracuse, N.Y. The director of the new institute is J. J. Hermans, professor of physical chemistry and director of the laboratory for Inorganic and Physical Chemistry at the University of Leiden, the Netherlands. Hermans is a specialist in the chemistry of macromolecular substances.

Another appointment is that of Kyosti V. Sarkanen as research associate. Sarkanen is an organic chemist who has had several years' experience in the pulp industry in Finland and with the Central Laboratory of the Finnish pulp and paper companies.

The industrial firms which, together with the College of Forestry, are the originating sponsors of the institute are the American Viscose Corporation, Philadelphia, Pa.; the Buckeye Cellulose Corporation, Memphis, Tenn.; the Celanese Corporation of America, New York, N.Y.; and the Hercules Powder Company, Wilmington, Del.

The primary objective of the unit is to provide a central source of fundamental knowledge that will serve as a basis for industrial development and growth. The institute's program will be devoted to basic research related to cellulose. All research results will be published.

The institute will also be a source of research personnel interested in chemistry and related fields. Advanced degree candidates will be affiliated with the institute and will carry out investigations under the guidance of its staff and according to the graduate requirements of

the College of Forestry. The institute will also promote conferences, seminars, and forums.

The new organization will be housed in the Hugh P. Baker Memorial Wood Products Laboratory building of the college, which has just been completed at a cost of nearly \$4 million. This modern laboratory, which is to be dedicated 2-3 May, will have numerous rooms equipped for organic and physical chemical studies of cellulose, wood, and polymers. Membership in the institute is open to all companies manufacturing cellulose products such as rayon, film, lacquers, plastics, and so forth, as well as companies making chemical pulps, and all other companies interested in research on cellulose.

Powder Diffraction, a Note to Authors

When authors submit for publication papers that describe investigations in which x-ray powder measurements were made, but which omit the actual x-ray data, it is requested that these data be sent to the editor of the Joint Committee on Chemical Analysis by Powder Diffraction Methods for possible inclusion in the *X-ray Powder Data File* that is published by the American Society for Testing Materials.

The data should contain accurate listings of *d* values and intensities of reflections. Other items of information of value for the data file are: *hkl* indices and lattice parameters if known, radiation used, type of x-ray recording employed, method of estimating intensities (visual, photometric, Geiger-counter), plus any relevant information concerning the nature and preparation of specimens studies. For additional details, communicate with the editor of the Data File, G. W. Brindley, College of Mineral Industries, Pennsylvania State University, University Park, Pa., U.S.A.

Japanese Protesting British Tests

A public debate is being held in Tokyo, Japan, on whether to send a "suicide sitdown fleet" to the forbidden waters around Christmas Island, the site of the forthcoming British hydrogen bomb tests. Premier Nobusuke Kishi and the All-Japan Seamen's Union have come out publicly against the proposed venture.

The *New York Times* reports that numerous fanatic opponents of nuclear demonstrations have offered to man small ships that would hover in the danger area. The first object of the expedition would be to prevent the British test blast, but if that failed the crusaders

would risk their lives as a protest against the development of advanced weapons.

This proposal for action against nuclear tests, made at a meeting of the Japan Council for Prohibition of Atomic and Hydrogen Bombs, has been criticized by more conservative Japanese. The idea for the protest is reported to have originated with a British pacifist journal called *Peace News*. The magazine is said to have written to the Japanese antibomb organization last week to state that five Britons had volunteered to take a suicide ship to the waters around Christmas Island if Japan would supply the vessel.

While the suicide fleet was being debated, the Japanese Government was reported to be preparing a third note to London, requesting advance notice of every blast, urging that "adequate measures" be taken to prevent damage and casualties, and asking that compensation be paid for any damage or casualties suffered by the Japanese.

Previous Japanese notes have asked the British to call off the tests. Japanese fishing interests have protested strongly that the exclusion of their ships from the waters around Christmas Island for the 5-month period of the tests will cost millions of dollars to the marlin and tuna industries. They demand compensation.

Chromosome Count

Confirmation of the previously noticed revision of the count of human chromosome numbers [*Science* 124, 576 (28 Sept. 1956)] has not been long in forthcoming. On 10 Nov. 1956, *Nature* carried an article by C. E. Ford and J. L. Hamerton reporting extensive studies carried out on testis tissue from three adult males. Very clear spermatogonial and spermatocytic counts showed 23 bivalents (or 46 chromosomes) in all but 14 among 188 cells. In those few cells one or more chromosomes had apparently been lost. No counts of 48 chromosomes, the formerly accepted number, were found.

It was noted that the two sex chromosomes, X and Y, were terminally associated in the great majority of cells, but in one cell they were held together by a subterminal chiasma. For the totality of chromosomes, an average of 55.9 chiasmata per cell, or between one and two chiasmata per chromosome pair, were observed at late diplotene to mid-diakinesis. The total amount of genetic recombination by crossing over can consequently be estimated to be half again as much as in the mouse, although it must be stated that the present data apply only to middle-aged and elderly males. Ford and Hamerton, who presented these studies at the first International Congress

of Human Genetics in Copenhagen last summer, believe that the formerly accepted number of 48 was arrived at because of some exceptionally long centric constrictions in certain chromosomes, which may have led them to be counted doubly; or else because in spermatocytes the X and Y chromosomes may have disjoined precociously, so that 24 instead of 23 bodies were counted.

Meanwhile verbal communication has come from Japan that M. Kodani has found various numbers in different individuals or in different tissues. Additional studies will be required before the question is finally resolved.—B. G.

Wisconsin's Bardeen Laboratories

The University of Wisconsin Medical School will dedicate the Bardeen Medical Laboratories on 17 May. This unit, named for Charles Bardeen, first dean of the Wisconsin Medical School, will afford space for the department of anatomy and physiological chemistry. The entire top floor will contain animal quarters. Speakers for the dedication, which will coincide with Alumni Day, will include Eugene Opie, George Corner, and Willard Rappleye.

Proposed Legislation

From 3 Jan. through 24 Feb., 1532 bills and resolutions were introduced in the Senate and 5809 in the House. Some of these have a special relevance to science and education. A list of such measures follows:

HR 783. Authorize and direct Secretary of Interior to undertake continuing studies of effects of insecticides, herbicides, and fungicides upon fish and wildlife for purpose of preventing losses of those natural resources. Metcalf (D Mont.) House Merchant Marine and Fisheries.

S 511. Establish deferred grazing program and protein feed program as parts of relief available to drouth-stricken areas under P.L. 875, 81st Congress. Johnson (D Tex.) Senate Agriculture and Forestry.

HR 1080. Provide for standards to be prescribed by Secretary of Agriculture governing imported agricultural food products. Byrnes (R Wis.) House Agriculture.

HR 1107. Provide for emergency federal financial assistance to states and territories in construction of public elementary- and secondary-school facilities urgently needed because of overcrowding, and encourage full and efficient use of state and local resources in meeting school-construction needs. Donohue (D Mass.) House Education and Labor.