

Low-Temperature Physics at Karlsruhe

To mark the installation of the two hundredth Collins helium cryostat manufactured by the A. D. Little Company, a conference on "Low-temperature Physics" was held at the Physikalischen Institut der Technischen Hochschule, Karlsruhe, during March 27-30. It was in the nature of an informal gathering, and it was agreed that no papers presented should be published. In consequence, there was considerable freedom to discuss preliminary results or to indicate the development of apparatus which had not necessarily achieved its final form. Altogether, some 110 people attended, representing fourteen countries, and a useful interchange of information and opinion took place, not only in the two and a half days of formal sessions, but also during the social events of each evening. Visits were arranged to the low-temperature laboratories at the Technischen Hochschule and the reactor establishment near Karlsruhe. The participants enjoyed a stimulating conference with a greater opportunity for informal discussion than is sometimes possible at larger international events. Hospitality was provided by the A. D. Little Company and the conference arrangements were in the hands of Prof. W. Buckel.

Solar Flares and Cosmic Rays

IN recent years there has been increasing interest in the observation of cosmic-ray primaries at ground-level following solar flares, and ten such cases have been observed since 1942. M. A. Ellison, S. M. P. McKenna and J. H. Reid have now given a summary of the characteristics of these ten flares, a review of their geophysical effects, and a detailed bibliography (Dublin Institute for Advanced Studies: *Observatory of the School of Cosmic Physics. Dunsink Observatory Publications*, 1, No. 3: *Cosmic Ray Flares*. Pp. 51-88. Dublin: Dublin Institute for Advanced Studies, 1961). The flares observed on the disk were notable for the flash of radiation in H α occurring in a time of 2 or 3 min., for their large area of order 2,000 millionths of the solar hemisphere, for the twin bright filaments crossing the sunspot group, and for the obscuration of the umbrae with the highest field strengths. The flares occurred near to maximum development of the sunspot groups. All the flares produced sudden ionospheric disturbances and strong radio continuum emission. Some of these flares were among the greatest ever recorded, others were not optically of great importance. The disk co-ordinates of these flares showed remarkable asymmetries in contrast to normal intense flares: there was a strong preponderance to the west limb. All except one occurred north of the solar equator. The implication is that easier and more direct paths to the Earth exist from the north-westerly quadrant of the solar disk, due possibly to the solar rotation and space motion. The authors conclude that the arrival of high-energy particles capable of producing cosmic-ray effects at ground-level is mainly determined by factors other than flare importance, such as the variable magnetic fields in interplanetary space, the disk position of the flare and the magnetic field conditions in the sunspot region.

Joint Health Physics Committee

THE Joint Health Physics Committee (the formation of which was noted in *Nature*, 193, 1136; 1962) is sponsoring a series of symposia on different aspects of health physics during the next two years, the first of which is to be held at the Atomic Energy Research

Establishment, Harwell, on June 5 under the title "Provision of Health Physics Services: Problems and Organization". Full details are being sent direct to the members of the collaborating organizations, and if accommodation permits other people will be welcome at the symposium. Further information can be obtained from Mr. W. A. Langmead, Radiological Protection Division, Authority Health and Safety Branch, U.K. Atomic Energy Authority, Harwell, Didcot, Berks.

Paramagnetic Resonance

THE first international conference on "Paramagnetic Resonance" will be held in the Hebrew University of Jerusalem during July 16-20. Subjects to be discussed will include: paramagnetic resonance of transition elements—the iron group, the rare earth group, the uranium group, the palladium and platinum group; double resonance ENDOR experiments; theoretical advances in energy-level calculations; resonance spectra of point defects and radiation centres in single crystals; spectra of ion pairs; relaxation phenomena and line shape—correlation with paramagnetic relaxation experiments; correlation of paramagnetic resonance spectra with optical spectra; advances in experimental techniques; influence of electric fields and pressure on paramagnetic resonance spectra. Further information can be obtained from Prof. W. Low, First International Conference on Paramagnetic Resonance, the Hebrew University of Jerusalem, Jerusalem.

Congress of the History of Science

THE tenth International Congress of the History of Science will be held at Cornell University, Ithaca, New York, during August 26-31, 1962, and at the American Philosophical Society, Philadelphia, Pennsylvania, during August 31-September 2, 1962. The following subjects will be covered: (I) general problems in the history of science; methods, philosophy and historiography of science; (II) history of technology and applied science; (III) science in antiquity; (IV) science in the Middle Ages and the Renaissance; (V) mathematics and the exact sciences after 1600—(1) history of mathematics, (2) history of physics and astronomy, (3) history of chemistry (including pharmacy); (VI) biological and earth sciences after 1600—(1) natural history and biology (including medical biology), (2) geography, exploration, geology and oceanography; (VII) sciences of man (psychology, anthropology, sociology, linguistics). Further information concerning presentation of papers and attendance can be obtained from the secretary, Dr. C. Doris Hellman, Tenth International Congress on the History of Science, Cornell University, Ithaca, N.Y.

The Association of Consulting Scientists

THE following officers and members of Council of the Association of Consulting Scientists have recently been elected: *Chairman*, Dr. M. Barent (Barent and Johnson); *Vice-Chairman*, Mr. F. G. Sarel Whitfield (Avebury Research Laboratories, Ltd.); *Hon. Treasurer*, Dr. G. W. Ferguson (Parry and Ferguson); *Hon. Secretary*, Mr. W. H. Stevens (Park House, Hawthorne Road, Bromley, Kent); *Members of Council*, Dr. H. H. Chambers (Sondes Place Research Laboratories, Ltd.), Dr. G. P. L. Miles (G. P. L. Miles), Dr. R. F. Milton (R. F. Milton), Mr. H. Pritchard (H. Pritchard), Mr. A. N. Worden (Huntingdon Research Centre).