hydrochloric acid, the activity is carried away with the hydrogen in the gaseous state, and can be collected in a tube. The chemical reaction must be the formation of phosphine (PH_3) or silicon hydride (SiH_4). The precipitation of the activity with zirconium phosphate in acid solution seems to indicate that the radio-element is an isotope of phosphorus.

These experiments give the first chemical proof of artificial transmutation, and also the proof of the capture of the α-particle in these reactions[3].

We propose for the new radio-elements formed by transmutation of boron, magnesium and aluminium, the names *radionitrogen*, *radiosilicon*, *radiophosphorus*.

These elements and similar ones may possibly be formed in different nuclear reactions with other bombarding particles : protons, deutrons, neutrons For example, ${}_7N^{13}$ could perhaps be formed by the capture of a deutron in ${}_6C^{12}$, followed by the emission of a neutron.

[1] Irène Curie and F. Joliot, *J. Phys. et. Rad.*, **4**, 494 ; 1933.
[2] Irène Curie and F. Joliot, *C.R.*, **198** ; 1934.
[3] Irène Curie et F. Joliot, *C.R.*, meeting of Feb. 29, 1934.

Obituary

Sir Donald MacAlister, bart., k.c.b.

BY the death at Cambridge on January 15 of Sir Donald MacAlister of Tarbert, in his seventy-ninth year, a great personality has passed out of the academic and medical life of Great Britain. He was a Scottish highlander descended from the MacAlisters of Tarbert in Argyllshire, a family which for about five centuries possessed considerable lands in Kintyre and the heads of which were hereditary keepers of Tarbert Castle. Although originally a branch of the great clan MacDonald, they held their Tarbert possessions in charter from the Campbells with whom they cast in their lot in politics and war.

Sir Donald MacAlister was born in Perth on May 17, 1854, and received his school education there and in Aberdeen and Liverpool, the changes in family residence being necessitated by his father's business activities. In 1873 he entered St. John's College, Cambridge, and in 1877 was senior wrangler and first Smith's prizeman in addition to receiving many other University distinctions. A year later he was elected a fellow of his college and having meantime turned to the study of medicine he graduated M.B. in 1881 and M.D. in 1884. Settling in Cambridge as a consulting physician, he was appointed Linacre lecturer on physic and a member of the staff of Addenbrooke's Hospital and thus became actively engaged in medical teaching. His earliest professional studies had been in the domain of pathology, but this was soon superseded by pharmacology and therapeutics, subjects in which he retained a keen and active interest to the end. In recognition of his special attainments he was chosen president of the Section of Therapeutics at the Toronto meeting of the British Medical Association and for many years was chairman of the "British Pharmacopœia" Committee, the 1898 and 1914 editions of which owed a great deal to his collaboration.

Although deeply interested in scientific and medical research and keenly appreciative of their results, Sir Donald MacAlister was never a 'research worker' in the ordinary sense of the term. His cast of mind and abilities were more those of the statesman and administrator and it was in these directions that he found a congenial field for his activities and that he reached his highest distinction. In Cambridge he took a large share in the administrative work of the University and in 1889 was elected its representative on the General Medical Council. He soon became one of its most influential members and when he resigned from it last year on account of failing health, he had served for forty-four years, twenty-seven of which were in the presidential chair. As president his advice was frequently sought by the Privy Council and other Government departments concerned with the administration of medical education, pharmacy and the public health, and in these matters he gradually came to exercise a far-reaching influence.

It was, however, not in medical matters only that Sir Donald MacAlister's influence on higher education and its administration was felt. His exceptionally wide knowledge and culture rendered him highly sympathetic to all the many departments of university studies and activities ; this led to his being chosen chairman of the Universities Bureau of the British Empire, chairman of the Commission on the University of Belfast, and to much other similar public work. In 1907 he was appointed by the Crown to the high office of Principal of the University of Glasgow and shortly thereafter was made K.C.B. In 1924 he was created a baronet in recognition of his many public services. When he went to Glasgow he had no special acquaintance with Scottish university affairs, but in a surprisingly short time he had acquired a complete grasp of them no less in their business than in their teaching aspects, and this soon found expression in numerous changes and reforms. During his principalship he inspired such confidence in the citizens of Glasgow that money was freely forthcoming for the establishment of many new chairs and lectureships and for general university expansion. Nor were the social and athletic sides of student life overlooked. A new Union costing £65,000 was built, new playing fields were provided and three residential halls for men and one for women were acquired by the University. From many contributors he received personally a large sum of money which was devoted to the building of a chapel in memory

of those members of the University who perished in the War, and this will ever remain a beautiful memento of his principalship.

Besides being the recipient of honorary academic degrees too numerous to mention in detail, Sir Donald MacAlister was decorated by the French and Italian Governments, and from his fellow-citizens he received the freedom of the city of Glasgow in recognition of his great services to their University and in testimony of their personal esteem. In 1929 he resigned the principalship after twenty-two years service and was unanimously elected Chancellor of the University in succession to the late Earl of Rosebery and Midlothian. His success as an administrator was largely due to an inborn aptitude for affairs, to a retentive memory for details and to a clear conception of the objects to be attained, but these were greatly enhanced by his industry, his devotion to duty and, as time went on, his wide experience.

WE regret to announce the following deaths :

Prof. H. L. Chablani, professor of economics in the University of Delhi, on January 14, aged forty-four years.

Prof. Fritz Haber, formerly director of the Kaiser Wilhelm Institute for Chemistry and professor of physical chemistry in the University of Berlin, known for his work on the thermodynamics of gas reactions, on February 1, aged sixty-five years.

Dr. William Page, general editor of the "Victoria History of the Counties of England", and a commissioner of the Royal Commission on Historical Monuments (England), on February 3, aged seventy-two years.

Capt. J. White, C.B., R.N., formerly dean of the Royal Naval College, Greenwich, previously professor of applied mechanics at the College, on January 28, aged sixty-three years.

News and Views

"Letters to the Editor"

DURING the year 1933, no less than four hundred communications appeared in NATURE under the heading of "Letters to the Editor", the big majority of which were the first announcements to be published of new work—news from the actual contributors to advances in science. Of this total, 201 were from scientific workers in universities and similar research centres in Great Britain and Ireland, and the remainder, 199, were from workers abroad distributed by continents as follows : Europe 78, America 57, Asia 37, Australia 14, Africa 13. In this week's issue of NATURE we are devoting 20 columns to 'letters' and the size of the journal has been increased to provide the necessary space. These 20 columns are, we believe, representative of the correspondence normally appearing in NATURE. The various items record current advances in biochemistry, atomic physics, radio communication, chemistry, biology and so on, and they are written by workers in Allahabad, Cambridge, Copenhagen, Dehra Dun (India), Groningen, Liverpool, London, Maine (U.S.A.), Nanking, Oxford, Schenectady, Stockholm, Sydney and Uppsala. Science truly is not confined by national boundaries. We think it a high compliment that scientific workers all over the world should regard our columns as the appropriate place to announce the progress of their labours and to discuss scientific matters and topics in which science and its methods are involved.

THIS part of the function of NATURE as an international journal of science has increased steadily in recent years. For some time past, the section of the journal devoted weekly to "Letters to the Editor" usually occupies 12 columns and frequently has been increased to 14 columns or more. Already this year we have printed 88 columns of 'correspondence', including the 20 columns appearing in this issue. Yet the waiting list is still large. The amount of space which can be given to 'letters' in a normal issue of NATURE must of necessity be limited if the journal is to discharge the remaining part of its function as a general journal of science, and we may even be obliged in the future to ask correspondents to limit their 'letters' to about five hundred words, or one column of space. For the present, we would urge them most strongly to be concise and precise in their communications, so far as is consistent with making them intelligible to the general reader. A certain amount of specialised matter is inevitable in announcements and discussions, particularly of recent advances, but severely technical communications, of interest to a few workers only in the same highly specialised field, are out of place in a general journal such as NATURE, which endeavours to keep its readers informed of the broad lines of progress in all scientific subjects.

Dr. C. V. Drysdale, C.B., O.B.E.

DR. C. V. DRYSDALE, director of scientific research at the Admiralty, whose impending retirement is announced, has long been recognised as an authority on electrical measurements. In the early part of this century, while in charge of the Electrical Engineering Department of the Northampton Polytechnic Institute, he devoted considerable attention to measurements in the alternating current circuit, and his work on the dynamometer wattmeter, and particularly the development of the double element instrument for the measurement of polyphase power, is now well known. This was followed by several important contributions to technical literature on alternating current measurements, and included his pioneer work on the design of instrument transformers. The regenerative dynamometer together with the cone stroboscope were also devised at about this time for the equipment of the laboratories. He also investigated the possibilities of using iron cores