devoted life must also be mentioned. To her must be due in no small measure the unique position which Sir Robert holds to-day among the chemists of the world.

On January 21 of this year, Lady Robinson's contributions, direct and indirect, to organic chemistry were recognized by the award of the honorary degree of Master of Arts of the University of Oxford, a gesture which warmed the hearts of chemists everywhere.

Lady Robinson's scientific papers, mainly in the *Journal of the Chemical Society*, record work carried out in the Universities of Manchester, Sydney, Liverpool, St. Andrews, London (University College), and the Dyson Perrins Laboratory, Oxford. The first two, with Dr. C. Weizmann, were published in 1910 and 1911 under her maiden name of Walsh. Many of the later papers were published jointly with Sir Robert Robinson. In work on certain derivatives of catechol ethers, the important discovery was made that asymmetrical substitution occurred in azoxy compounds, thus adding proof to that earlier provided by Angeli of the asymmetrical structure of the azoxy compounds themselves. Another series of papers of considerable novelty dealt with nitrogenous pseudo-bases, and the mechanism of Fischer's indole synthesis. Still another series described the development of new methods for the synthesis of high-molecular weight fatty acids, notable among which was a variation of the acetoacetic ester synthesis for the extension of the carbon chain by twelve carbon atoms at a time; this elegant process culminated in the synthesis of *n*-triacontanoic in 1934.

Lady Robinson published numerous papers on the anthocyanins and their separation by distribution between two partially miscible solvents, a method which was virtually a forerunner of modern partition chromatography. More recently still, her interest in these compounds led her to undertake a very difficult task, namely, the investigation of the leucoanthocyanins, in particular peltogynol. She took an active part in the work on penicillin during the Second World War, and it is perhaps not generally known that she was the first chemist to prepare synthetical material with genuine antibiotic character of the penicillin type.

Lady Robinson's name is assured of a lasting and honoured place among those organic chemists who have made major contributions to their science.

W. Baker

Prof. E. Esclangon

We regret to record the death on January 28 of M. Ernest Esclangon, the *doyen* of French astronomers, at the age of seventy-seven.

Esclangon started astronomical work at Bordeaux in 1899, taking a regular share in the routine work of the Observatory, observing minor planets and comets and making observations with the meridian circle and equatorial. But although he remained throughout his life associated with observatories, his principal achievements were not in astronomy, apart from administrative work. While still at Bordeaux he carried out gravity determinations in south-west France, relative to the standard at Paris. After the outbreak of war in 1914, he assisted in the geographic service of the French Army, doing work on sound-ranging and making a study of the sound waves resulting from the firing of a gun and the passage of a shell through the air. Towards the end of the First World War he took part in researches concerning submarines.

In 1919 Esclangon was appointed director of the Observatory at Strasbourg, which had been taken over from the Germans. Here he had the opportunity of publishing the work he had done during the War and of extending his researches to such subjects as the zones of silence at various distances from explosions, the rotation of projectiles around their centre of gravity, and the tides. He was so successful in building up an effective observatory at Strasbourg that when Deslandres retired from the directorship of the Observatories of Paris and Meudon in 1929, he was appointed to this important post.

Esclangon was always interested in the time service in which Paris has for long played an important part. He developed methods for the synchronization of pendulums electrically, and he introduced the speaking clock which latterly gave accurate time signals to 16 million Parisians annually. After acting as host for the general assembly of the International Astronomical Union at Paris in 1935, he was elected president of that Union for the next three years, terminating with the congress at Stockholm in 1938. He was president of the Paris Academy of Sciences in 1942, and finally retired in 1946. His services to astronomy were recognized in Great Britain by his election as an Associate of the Royal Astronomical Society in 1932.

J. Jackson

NEW FELLOWS OF THE ROYAL SOCIETY

At the meeting of the Royal Society on March 18, the following were elected to fellowship:

Prof. D. H. R. Barton, professor of organic chemistry, Birkbeck College, London, distinguished for his fundamental contributions to the chemistry and stereochemistry of terpenes, triterpenes and steroids.

Prof. T. MacF. Cherry, professor of mathematics, University of Melbourne, distinguished for his researches on transonic flow and for earlier work on orbits in celestial mechanics.

Prof. E. G. Cox, professor of inorganic and physical chemistry, University of Leeds, distinguished for his contributions to stereochemical problems in inorganic and organic chemistry by the application of X-ray crystallographic methods.

Dr. F. C. Frank, reader in physics, University of Bristol, distinguished for his original contributions to theories of crystal growth, of plastic deformation and of dislocations in crystalline solids.

Prof. A. B. Hill, professor of medical statistics, University of London, distinguished for his work on the application of statistical methods to medical problems, including the evaluation of new therapeutic and prophylactic drugs.

Prof. E. S. Hills, professor of geology and mineralogy, University of Melbourne, distinguished for contributions to palæontology, particularly of Devonian and Tertiary faunas, and for geological studies in Australia.

Sir Christopher Hinton, managing director, Industrial Group, Department of Atomic Energy,