effect of progressively greater deviations from the simple single particle models on nuclear properties. His interests included nuclear magnetic moments, anomalous beta and gamma decay, energy levels of some individual nuclides and level systematics of whole classes of nuclides, the behaviour of many particle systems and the properties of nuclear matter. He published many papers on these topics, some considered classical and definitive.

In a relatively short time de-Shalit established himself as an international authority on nuclear structure. He was in great demand to attend conferences, seminars and summer schools, and was invited to participate in discussions to plan the research programmes of many laboratories. In 1963 he published, together with I. Talmi, a standard textbook on the shell model.

As well as his scientific expertise, de-Shalit had considerable administrative abilities. The duties he was called on to carry out in this respect were a heavy demand on his time. Towards the end of his life he was torn between the desire to keep to pure research and the realization that he could perhaps contribute more to the institute and to Israel by undertaking administrative work.

de-Shalit was a man of catholic tastes, always interested in the education of young scientists. He encouraged a closer connexion between the Weizmann Institute and the high schools of Israel, taking the form of lectures, summer science camps and competitions for science prizes. At forty de-Shalit decided that he should contribute more towards the training of the next generation of scientists and devoted an increasing part of his time to this task. He collected a group of scientists and started a thorough study and revision of the methods of teaching physics. He was also chairman of the Scientific Preparatory Committee of the Fifth Rehovot Conference on Science and Education in Developing Countries, but his last illness precluded his participation in it.

Correspondence

Terminology of Biosphere and Ecosphere

SIR,—The word ecosphere reported as new (*Nature*, **223**, 500; 1969) has been in the English lexicon at least since 1956 when it was defined in a US Air Force publication[1]. There are twelve citations for ecosphere in the research files of the G. & C. Merriam Company which contain more than ten million examples of English usage. The word has been used in a very general sense by Willie Ley: "It is not very difficult to calculate the distance and extent of the ecosphere for any star, provided its size and its surface temperature are known. For a rather hot star, like Sirius, the inner border of the ecosphere will be a considerable distance from the surface of the star. For a rather cold star the inner border of the ecosphere will not be as far away"[2].

By 1966, the word ecosphere had become important enough for entry in the addenda to *Webster's Third New International Dictionary*[3] with an adjective derivative. It is defined there as follows:

ecosphere/ˈekō,sfi(ə)r, ēk-/*n* [*ec-* + *sphere*]: the parts of the universe habitable by living organisms; *esp*: BIOSPHERE 1—**ecospheric**/ˌekōˈsfirik, ˌēk-, -fer-/ *adj*

The addenda are bound at the front (pp. 57*a*–64*a*) of all copies bearing a 1966 copyright.

A considerable effort is made to keep the word files upon which *Webster's Third New International Dictionary* is based up to date. For example, several scientific editors read *Nature* regularly for the purpose of culling examples of current scientific usage.

Members of the scientific and technical community are invited to query the files and to submit reprints of their published work for lexicographic examination.

Yours faithfully,

R. W. PEASE, jun.

G. & C. Merriam Company,
Springfield, Massachusetts 01101,
USA.

[1] *US Air Force Dictionary* (edit. by Heflin, W. A.), 183 (Air University, 1956).
[2] Ley, W., in *Information Please Almanac Atlas and Yearbook*, 73 (Simon and Schuster, New York, 1962).
[3] *Webster's Third New International Dictionary, Addenda*, 59*a* (G. and C. Merriam Co., Springfield, Mass., 1966).

Professor Samueloff and Mr. Muallem

SIR,—The news of the release of Professor Samueloff and Mr Muallem from detention in Syria should be particularly welcome to the international scientific community.

When it became known that a distinguished physiologist had been hi-jacked while travelling back to Israel after discussions of his part in an Anglo-Israel study under the auspices of the International Biological Programme, there was an immediate response from his fellow physiologists both in this country and the United States.

Professor Wallace Fenn, president of the International Union of Physiology (IUPS), telephoned and cabled the various members of the committee of IUPS, and appeals were sent direct to the President of Syria and U Thant. The trustees of the Mayo Foundation, where Professor Samueloff had worked, authorized the director, Dr Code, to use his best efforts on behalf of Professor Samueloff. In the meanwhile, Professor Magnes, head of the Department of Physiology at the Hadassah Medical School, Hebrew University of Jerusalem, had appealed to colleagues throughout the world. Within a few days nearly all the members of the Physiological Society had signed an appeal (organized by my colleague, Dr Fox) which was sent to U Thant, and was also supported by the Dutch physiologists. The scientific director of the International Biological Programme informed the president, Professor Baer, who cabled direct to the President of Syria. Through the Royal Society and through representations by several international unions, the support of the International Council of Scientific Unions (ICSU) was sought, as was that of other international bodies such as the World Health Organization and the World Medical Association. It is understood that they individually took up the question with U Thant.

Letters were also sent by various individuals to the President and the Prime Minister of Syria. Finally, thirteen of the British Nobel Laureates in physics, chemistry, medicine and physiology signed a letter to the President of Syria, which was just about to be sent when the news was received that Professor Samueloff had been released. Nobel Laureates in other European countries have also supported an appeal. In addition to these various actions, there have been many others, including correspondence or discussion with the Foreign Office, the International Federation of Airline Pilots and Amnesty International, as well as similar efforts in other countries.

The steps taken by so many scientific bodies are welcome evidence of the international concern of scientists about one of their members. Naturally it is to be hoped that such a situation as the imprisonment of Professor Samueloff and Mr Muallem will not recur, but scientists are travelling so frequently on world-wide journeys that they are, as a body, increasingly at risk. This travel is essential for the workings of many scientific bodies such as WHO. The fourteen weeks spent in prison by Professor

Samueloff and his companion might well have been longer if the protests of the scientific world had not been made, but fourteen weeks is a very long time.

Those of us who were directly involved, as colleagues of Professor Samueloff, realized all too well that we were amateurs, probably blundering in our efforts to help and not at all sure that our efforts were coming near the target. There were those who advised working behind the scenes, others who felt that a maximum of press publicity was essential. In spite of some setbacks and occasional rebuffs, the scientific and medical associations, and so on, took up the matter speedily, but it is probable that more effective machinery could be devised against such emergencies.

I suggest that this question ought to be on the agenda of all learned societies.

Yours faithfully,

O. EDHOLM

National Institute for Medical Research,
Hampstead Laboratories,
London NW3.

University News

Dr J. M. Morris has been appointed John Slade Ely professor of gynaecology at the **Yale School of Medicine.**

Appointments

Professor S. K. Runcorn, University of Newcastle upon Tyne, has been appointed by the Council of the Royal Society to be **Rutherford Memorial Lecturer** for 1970 in Kenya, Tanzania and Uganda. It is expected that he will lecture on topics in geophysics at University College, Nairobi, University College, Dar es Salaam, and Makerere University College, Kampala.

Announcements

Lord Blackett (University of London) has been re-elected president of the **Royal Society.** Other officers re-elected for the coming year are: treasurer, **Sir Frederick Bawden** (Rothamsted Experimental Station); biological secretary, **Sir Bernard Katz** (University College, London); foreign secretary, **Sir Harold Thompson** (University of Oxford). **Sir Harrie Massey** (University College, London) was elected physical secretary. New elections to the council were as follows: Professor J. F. Adams (University of Manchester), Professor E. J. Denton (University of Bristol), Professor D. W. Holder (University of Oxford), Professor F. Hoyle (University of Cambridge), Sir Ewart Jones (University of Oxford), Dr J. W. Menter (Tube Investments, Ltd), Professor D. C. Phillips (University of Oxford), Professor F. H. Stewart (University of Edinburgh) and Dr Marthe L. Vogt (formerly ARC Institute of Animal Physiology, Cambridge). The following were re-elected to the council: Professor P. W. Brian (University of Cambridge), Professor J. N. Davidson (University of Glasgow), Sir Charles Goodeve (formerly British Iron and Steel Research Association), Professor W. R. Hawthorne (University of Cambridge), Sir John McMichael (British Postgraduate Medical Federation), Professor R. C. Sutcliffe (University of Reading) and Sir Maurice Yonge (University of Glasgow).

The **International Society of Psychoneuroendocrinology** was established at a meeting in Milan on September 1–2, 1969. The aim of the society is to coordinate clinical and basic research work in the psychoneurological and the endocrinological sciences. An advisory council of members from twenty-five countries was formed. Further information can be obtained from the secretaries: Dr F. Wolleson, the Neurochemical Institute, 58 Rådmandsgade, 2200 Copenhagen, Denmark, or Professor F. Brambilla, Clin. Psichiatrica dell'Universita, Via Besta 1, Milano-Affori, Italy.

The **Dr H. P. Heineken Prize,** which is awarded every three years by a committee appointed by the Royal Netherlands Academy of Science, has been awarded for 1970 to **Dr B. Chance,** professor of biophysics and director of the Eldridge Reeves Johnson Foundation for Medical Physics at the University of Pennsylvania, for his research on the mechanism of intracellular respiration and photosynthesis.

The first **BDH Award in Analytical Biochemistry** has been made by the Biochemical Society to Dr B. S. Hartley, MRC Molecular Biology Unit, Cambridge. The award is to be made triennially by the society for work carried out in a laboratory in the UK or Eire leading to advances in biochemistry related to the application of a new reagent or method.

The **Ministry of Technology's Wolfe Award** has been presented to **Mr W. Watt, Mr L. N. Phillips** and **Mr W. Johnson** (Materials Department, Royal Aircraft Establishment, Farnborough) for their discovery of a method of producing high strength, high stiffness carbon fibres.

ERRATUM. In the book review by Robert Maycock of *Fact and Theory: An Aspect of the Philosophy of Science* by W. M. O'Neil (*Nature*, **224**, 976; 1969), the first sentence should have read: "A casual reference to the philosophy of science can still transform the most level-headed scientist into a ranting protestor."

ERRATUM. In the note "Nuclear Power" in "Parliament in Britain" (*Nature*, **224**, 405; 1969), it was stated that "the cost of replacing a complete set of fuel elements in the Dragon reactor was about £60,000". In fact, the heat exchangers were replaced and not the fuel elements. The fuel development programme of the Dragon project has been successful, and the difficulties encountered with the heat exchangers are not related to the reactor system itself.

International Meetings

January 6, **Gas–Liquid Chromatography of Natural Products,** London (Mr E. L. Robins, Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, London WC1).

January 12–24, **Biological Effects of Carbon Monoxide,** New York (Mr L. R. Neville, Associate Executive Director, New York Academy of Sciences, 2 East 63rd Street, New York, NY 10021, USA).

January 22, **Technical Information on Materials for Building and Construction—Sources and Presentation,** London (The Society of Chemical Industry, 14 Belgrave Square, London SW1).

February 25–26, **Trends in Diffusion,** Teddington (Meetings Officer, The Institute of Physics and the Physical Society, 47 Belgrave Square, London SW1).

March 22–25, **First Annual Meeting of the Environmental Mutagen Society,** Washington (Dr F. J. de Serres, Editor, EMS Newsletter, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830, USA).

March 23–25, **Dielectric Properties of Heterogeneous Systems including Biological Materials,** Aberystwyth