

GILLETTE INTERNATIONAL RESEARCH FELLOWSHIP

Surface Physics

University of Southampton, England

Applications are invited for one of the international Post-Doctoral Research Fellowships set up by the Gillette Company to promote the international exchange of scientific and technical workers. The present Fellowship is tenable in the Department of Physics of the University of Southampton under the direction of Dr. H.G. Jerrard or Dr. B.J. Hopkins.

Applicants should hold a higher degree, or possess 3-4 years relevant post-graduate research experience. This Fellowship is open to nationals of the UK, other Western European countries or the United States, or Canada.

The Fellow will be expected to undertake a study of surfaces and of films, both metallic and dielectric (including organic polymers) deposited under, and subject to, a variety of environmental conditions. The applicant should submit his own proposal for a programme of work. The available techniques include LEED, RHEED, Auger spectroscopy, ellipsometry, electron microscopy and work function methods.

It is expected that the results of the work will be published.

The Fellowship will be for one year, in the first instance, with the possibility of renewal for a further year and will carry a remuneration of £ 2,300 per annum. Applicants should be able to take up the Fellowship during 1973.

Applications giving full personal particulars including curriculum vitae, and a programme proposal with names and addresses of two academic or technical referees, should be sent to: **The Secretary, International Research Fellowship Committee, Gillette Research Laboratory, 454, Basingstoke Road, Reading, Berks. RG2 0QE, England.**

The closing date for applications will be 1st July, 1973.

Theoretical Physics

An Advanced Text

By B.G. LEVICH, V.A. MYAMLIN and YU.A. VDOVIN, Institute of Electrochemistry, Academy of Sciences of the U.S.S.R., Moscow.

Translated from the Russian by S. Subotić, Belgrade. Translation edited by J. Schneps, Tufts University, Medford, Mass., U.S.A. and A.J. Manuel, Leeds University, England.

This is the first English edition of the famous textbook of theoretical physics widely used in Russian universities. The work, which is updated and expanded, is published in four volumes each of which can, to some extent, be studied independently.

Just published

Volume III : QUANTUM MECHANICS

1973. 642 pages
Dfl. 120.00 (ca. \$ 37.50)
ISBN 0-7204-0179-8

Volume III presents the basic ideas of modern relativistic quantum mechanics as well as the traditional problems of non-relativistic quantum mechanics. The mathematical apparatus of quantum mechanics has been included since it is not usually taught in traditional mathematical courses.

CONTENTS: The basic concepts of quantum mechanics. The Schrödinger equation. The mathematical apparatus of quantum mechanics. Motion in a centrally symmetric field. The quasi-classical approximation. The matrix form of quantum mechanics. Perturbation theory. Spin and identity of particles. Applications of quantum mechanics to atomic and nuclear systems. The theory of diatomic molecules. Scattering theory. The method of second-quantization and radiation theory. Relativistic quantum mechanics. Some problems of quantum electrodynamics. Fundamentals of the theory of elementary particles. Subject index.

Previously published

Volume I: Theory of the Electromagnetic Field, Theory of Relativity

1970. 415 pages
Dfl. 47.00 (ca. \$ 13.75)

Volume II: Statistical Physics, Electromagnetic Processes in Matter

1971. 668 pages
Dfl. 75.00 (ca. \$ 22.00)

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Sole distributors for the Western Hemisphere:
Wiley Interscience Division, John Wiley & Son, Inc., New York.

Astronomy and Astrophysics for the 1970s

Report of the Astronomy Survey Committee (National Academy of Sciences, Washington D.C. 1972).

This Report must be one of the most remarkable documents of its type ever written. It was produced by the 'Greenstein Committee' and submitted to the National Academy of Sciences in April 1972. Their brief was to recommend a 10-year research programme for the United States, on the basis of priorities established for both ground-based and space facilities, and also for theoretical astronomy.

The Report is remarkable because it combines close reasoning about priorities and costs with an account of the present state of astronomy which beautifully and lucidly conveys the exciting and fundamental discoveries that have recently transformed

the subject. It is essential reading for all concerned with the future of astronomy and with science planning of all kinds. I would like to recommend it also to members of the European Physical Society. I do this because the Report underlines so clearly the great extent to which the recent developments in astronomy depend on our understanding of a wide range of modern physics. Equally the Report makes clear the great extent to which modern astronomy can contribute to our understanding of physics.

How much the Americans will implement this Report we do not know. But if Europe wishes to remain in the forefront of astronomy in the 1970's (and beyond) it should study it with great care, and act accordingly.

D.W. Sciama

SOCIETY NEWS

Election of IOM Council Delegates

Voting papers for election of Council delegates representing Individual Ordinary Members have to be completed and returned to the EPS Main Secretariat in Geneva by 10 March 1973. Two vacancies have been left by G. Bernardini, Pisa, Italy, and E.H.S. Burhop, London, UK.

IOM Fees in Poland

In Poland, Individual Ordinary Members, Category 4(c), may pay their membership fee of Sw. Fr. 18.— as Polish Zlotys 106 directly to the EPS account at BANK HANDLOWY w WARSZAW: ES.A., Warsaw.

New Danish Physical Society

The Danish Physical Society, Dansk Fysisk Selskab (DFS), was constituted on 19 December 1972. DFS has presently two member societies:

Danish Society for Physics and Chemistry of Condensed Matter; Fysisk Forening.

The Board of DFS consists of Jens Bang (Chairman)
R.M.J. Cotterill (Treasurer)
P. Sigmund.

The Secretary of DFS is H. Smith, Fysisk Laboratorium I, H.C. Ørsted Institute, Universitetsparken 5, DK-2100 Copenhagen Ø, Denmark.

DFS has applied for membership of EPS in replacement of the Danish Society for Physics and Chemistry of Condensed Matter.

Applied Physics and Physics in Industry

L.A.A. Thomas (Wembley, UK) has been appointed by the Executive Committee to succeed O.G. Folberth (Böblingen, Fed. Rep. of Germany) as Chairman of the Advisory Committee on Applied Physics and Physics in Industry.