

physical phenomena which are shown by polymers.

The main purpose of this brief review is to show that macromolecules and polymers not only deserve the attention of physicists because they are interesting by themselves, but also because their versatility makes it possible to use them as objects for study of physical phenomena and theories in general.

In several fields of theoretical physics macromolecules give rise to interesting extensions and applications. One such field is that of statistical thermodynamics with particular emphasis on generalised Ising models and phase transitions. [4.3 and 4.4]. Besides, also the theory of molecular forces [4.1 and 4.2] and of relaxation phenomena [4.5 and 4.6] acquires new possibilities in the study of macromolecules. Finally, since nature makes extensive use of macromolecules and their very specific intra- and intermolecular interactions, the physicists' contributions to the unraveling of the intricate ways in which nature realises the infinite variety of structures and functions in living matter will necessarily start with the study of macromolecules.

Besides, calling attention to the activities of the section on macromolecules of the European Physical Society, this short review will perhaps contribute to a change in the role of macromolecules in physics courses.

Perhaps macromolecules will not only be considered as interesting objects for study in borderline fields of physics, but will be given a central place in physics teaching and research.

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Letter to the Editor

Technology interacting with norms and values

Sir,
Stimulated by Casimir's article "Technology for the future" (Europhysics News, September 1974) as I always am by his writings, I venture to comment on the reasoning leading to his conclusion: "For the time being I do not see an indication on the necessity to limit the growth of electronics". He bases this conclusion on three arguments: (1) we cannot conserve anything like our present civilization without technology (including electronics); (2) electronics does not lead to waste, it may even reduce it; (3) it does not spoil environment.

But he also states that: "in developed countries part of the population is living at a level of energy consumption that seriously impairs their well-being and therefore lowers their standards of living". Could it then not be that, because of the growth of electronics, the same holds, for an even larger part of the population, as regards information consumption? Moreover, might not the unrestricted growth of electronics and information techniques encourage the accumulation of centralized, bureaucratic

power over individuals? (In this respect it would have been more relevant to quote Orwell's "1984" than Huxley's "Brave New World").

The answers to such questions could have a bearing on our thinking on limits to growth. History has shown that the growth of science and technology has influenced norms and values. On the other hand scientists and spokesmen of public opinion, reasoning from the existing system of norms and values, are increasingly asking the question "Is this what we want?" Should we not include in "the system" such immaterial things as norms and values and their interaction with the science and technology spiral (My Concise Oxford says that a system is an "organized body of material or immaterial things"...

Casimir's three arguments for not limiting the growth of electronics leave open the question of whether, in the not too distant future, the values and norms of a society that respects human privacy, dignity and freedom might not themselves impose limits on this growth. Casimir's optimistic view of the future of electronics, which in many respects I endorse, should not, however, deter scientists working in this field from incorporating the latter interaction in their thinking about the consequences of their work. G. Diemer, Eindhoven

Society News Divisions

The Nuclear Physics Board, at its first meeting, held at Legnaro, Italy, elected the officers of the Board and coopted members to ensure that all areas of nuclear physics and national regions are fully represented.

The Board at present has the following members:

C. van der Leun, Utrecht, (Chairman); A. Strzalkowski, Cracow, (Vice-Chairman); W.D. Hamilton, Brighton, (Secretary); K. Alder, Basel; K. Bethge, Heidelberg; N. Cindro, Zagreb; E. Cotton, Gif-sur-Yvette; P.G. Hansen, Geneva; M. Ivascu, Bucharest; T. Mayer-Kuckuk, Bonn; S.G. Nilsson, Lund; R.A. Ricci, Legnaro; I. Talmi, Rehovot.

The first Divisional Conference will be held at A.E.R.E. Harwell on 24-26 March 1975 with the title "Nuclear Interactions at Medium and Low Energies". The topics and principal speakers are:

Heavy Ion Nuclear Physics	M. Lefort and W.R. Phillips
Heavy Ion Non-Nuclear Physics	W. Greiner
Nuclear Fusion and Heavy Elements	H.J. Specht and a speaker to be announced

Nuclear Physics Aspects of Nuclear Astrophysics	D. Bodansky
Low Energy Neutron Interactions	H. Weigmann and M. Coates
Laser Fusion Accelerators	D.E.T.F. Ashby J.P. Blaser

Accommodation will be in Oxford Colleges. Further details are available from The Meetings Officer, The Institute of Physics, 47, Belgrave Square, London SW1X 8QX (see also *Meetings Issue, Vol 5, No. 11*).

Call for nominations. The Board of the Plasma Physics Division will be renewed this year for the term of office 1976-1978. The present board of the Division is preparing a list of candidates.

Members of the Division, i.e. Individual Ordinary Members, Constitution Article 4a) and 4c), and National Societies, Academies and Laboratories, Article 4b), can make proposals for candidates.

Any proposal for candidates should be sent before 28 February 1975 to: Professor P. Vandenplas, Chairman, Plasma Physics Division, Ecole Royale Militaire, Laboratoire de Physique des Plasmas, 30, avenue de la Renaissance, B - 4 Brussels