The humorous anecdotes on physics before the war convey in this regard a sense of the human side of science; Casimir's essays "Industry and science after the Second World War" and "The science-technology spiral" contain much hard-learned wisdom. One wishes, however, for temporal extensions of both: more about the human side of industrial science after the war, more reflection upon physics and society before and during the war. Casimir apologizes for not fulfilling the first wish: a generation should pass before names are mentioned (or are industrialists less prone to adolescent pranks?). His intriguing chapter on physics in occupied Holland—the only country in which students and faculty struck the universities upon the dismissal of Jewish colleagues—helps to satisfy the second wish. Yet more remains to be known. Passing remarks about Pascual Jordan's Nazi collaboration, about genetics and intelligence, and about "mass murder" weapons (atomic bombs?) are simply too sketchy to allow full comprehension.

Aside from the numerous anecdotes, Casimir actually does write about such informative (and sometimes equally amusing) topics as the nature of the physics profession when he entered it, the pedagogy of his three outstanding teachers, and the expected career opportunities (mainly in secondary school teaching). There are also informative technical appendixes on physics in the '30's as he recalls it. Yet, again, more could be said. There is, for instance, little account of his own research, such as his best-known work on van der Waals forces.

Historians of science will thus desire much more, but physicists and lay readers will nevertheless join them in their immense enjoyment of this personal encounter with a prominent physicist and with the world of physics as he remembers it.

DAVID C. CASSIDY
*Einstein Project, Princeton University Press, Princeton, New Jersey 08540*

## Neoplasia

**Chromosome Mutation and Neoplasia**. JAMES GERMAN, Ed. Liss, New York, 1983. xxxiv, 452 pp., illus. $96. The Chromosomes Series.

*Chromosome Mutation and Neoplasia* is the second volume in the Chromosomes Series. The first volume, *Chromosomes and Cancer* edited by German, was published in 1974 and was a success. The new volume is based on the proceedings of a meeting held in New York in 1980 on chromosome breakage and neoplasia, with material added to give improved coherence to the subject, especially in the light of the enormous advances made in the past two years in understanding oncogenes, their chromosomal localization, and their likely role in chromosome translocations in tumors.

The volume is divided into two sections, the first consisting of a straightforward clinical description of inherited disorders in humans that predispose to cancer. These include Bloom's syndrome, ataxia telangiectasia, xeroderma pigmentosum, and Werner's syndrome. These chapters are quite thorough reviews for newcomers to the field but do not offer any new information. A chapter by B. P. Alter and N. U. Potter on Fanconi's anemia is the exception here. The rest of the section offers useful and comprehensive reviews of both the patterns of neoplasia associated with the chromosomal breakage syndromes and the well-known unusual sensitivities of various disorders to different environmental agents.

The second section tries to describe the importance of genomic change in neoplastic development. There are chapters on the effects of ionizing radiation, various chemicals, and viruses on chromosomes, all subjects that have been well reviewed previously. The remainder of this section attempts to provide continuity with the first section on the subjects of inherited chromosomal disorders and specific chromosomal changes associated with various tumor types. R. Sager, J. German, and R. S. K. Chaganti in separate chapters reiterate various schemes for the origin and progression of malignancy. The various postulated steps to malignancy, including generation of genetic diversity by damage to the genome, the production of specific chromosomal translocations, oncogene activation, and specific target cell involvement all are mentioned. Sager's chapter is more general, being partly a review of other work on transposable elements. German and Chaganti speculate more directly on the significance of the quite different chromosome abnormalities associated with Bloom's syndrome and ataxia telangiectasia respectively. Both chapters are thought-provoking. There is a paucity of comments on the significance of chromosomal changes in Fanconi's anemia, and both xeroderma pigmentosum and Werner's syndrome are lost to view. Of course, these chapters in some ways attempt what at present is impossible, to understand the relation to cancer development of chromosomal changes observed experimentally or clinically.

Clearly there are some irritations in a book like this. The main ones in my view are a degree of repetition throughout, the unequal treatment of the significance of the chromosomal changes in the different disorders, and the fairly superficial homage given, in what must be an added chapter, to recent developments concerning oncogenes and their involvement in chromosomal translocation.

Overall, however, the book is a worthy successor to *Chromosomes and Cancer* and is to be recommended as an attempt to bring together the chromosomal and molecular levels of study. The printers have included their own joke by getting pp. 338 and 339 out of sequence in the chapter on genomic rearrangements.

The subject is advancing rapidly, and it is to be hoped that we do not need to wait a further decade for a third volume. This might include both a review section and a section of recent experimental results by some new contributors.

A. M. R. TAYLOR
*Department of Cancer Studies, University of Birmingham Medical School, Birmingham B15 2TJ, England*

## Plants and Pollinators

**Handbook of Experimental Pollination Biology**. C. EUGENE JONES and R. JOHN LITTLE, Eds. Scientific and Academic Editions (Van Nostrand Reinhold), New York, 1983. xviii, 558 pp., illus. $46.50.

Although pollination biology may seem to be a quite circumscribed and specialized subject, its study encompasses an amazing diversity of approaches. Plant-pollinator systems can be used as models for studying problems of plant genetics, plant reproduction, ecological chemistry, foraging behavior, species interactions, coevolution, and community ecology. The last 20 years have seen an explosion of such studies on pollination biology, and, as in any rapidly growing field, some areas have advanced considerably in isolation from others. This *Handbook of Experimental Pollination Biology* provides a timely and valuable compilation of recent research advances in these diverse areas.

Despite what the title implies, the book goes beyond being a manual of methodologies, although techniques for the analysis of color perception, floral pigments, and fragrances are covered. Some of the 29 papers in the volume