

IMAGE PROCESSING AND COMPUTER-AIDED DESIGN IN ELECTRON OPTICS

edited by P. W. Hawkes

*Cavendish Laboratory, Cambridge
England*

April 1973, x+442 pp., £6.50

This book deals with two major innovations in electron optics in recent years—the practical exploitation of wave optics and the deep involvement of the computer in design problems.

It divides naturally into three complementary sections. Parts One and Two are concerned with electron optical contrast transfer theory and with scattering and image formation, while Part Three covers computer-aided design and improvement of the instruments to which the wave theory of imaging is now being applied. Much of the material is original, previously unpublished work. Papers are included from German scientists whose work has not before been available in English. Since most of those who have made important contributions to the subject have written chapters for the book it will serve as an authoritative and up to date account of electron image formation and electron lens design.

The book will provide a valuable source of information for researchers in electron optics, electron microscopists, particularly those working on physical or biophysical problems, and also biologists who need to understand the mode of formation of the image. The absence of competitive works will mark it as a major contribution to the literature on this increasingly important field of research.

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