BOOK REVIEWS

The Photographic Recording of High-Speed Processes

By Alexander Dubovik. Published (1981) by John Wiley & Sons Inc., 605 Third Ave., New York, N.Y. 10158. 553 pp. $75.00.

Dr. Dubovik is one of the outstanding authorities in the field of photo-instrumentation. His many contributions to the divers International Congresses on High-Speed Photography have won him the respect of his peers and worldwide fame in his chosen field. In 1976 he was the recipient of the SMPTE Photo-Sonics Achievement Award "for his numerous contributions in high-speed photography, notably the design and development of mechano-optical cameras."

The book does justice to his high professional standing. It is "devoted to the problem of recording and studying high-speed processes, which is a vital task for modern science and technology." Today, in fact, high-speed processes have permeated all kinds of technologies, from simple industrial mass production of consumer goods to the launching of the space shuttle.

The organization of the book is all encompassing. Slit scanning, moving film, theory of mirror scanning, and stationary film with mirror scanning are the topics of Part I. Part II is dedicated to high-speed photographic cameras. Among its topics are included: intermittent film motion, image dissection cameras, raster cameras, cameras with optical-mechanical compensation, multiple reflection cameras, optically compensated cameras. Part III describes schlieren, interference, and stereoscopic high-speed photography, spectroscopy, photomicrography, and the application of color photography. High-speed flash photography and cinematography, the use of electron-optical converters, high-speed holography, and cineholography complete this section of the book. Part IV, finally, considers the auxiliary devices and materials of use in high-speed photography.

The present English translation by A. Ya. Askenov is an enlarged version of the second Russian edition. It excels through the rigorous mathematical treatment of its subject matter, through its meticulous description of mechanisms and methods, and through the broadness in concept and multitude of details. Designers, engineers, and teachers in this field may find this book of invaluable help. It certainly is highly recommended reading.

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