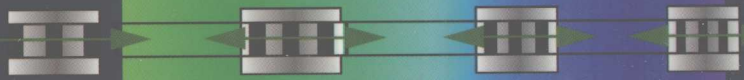
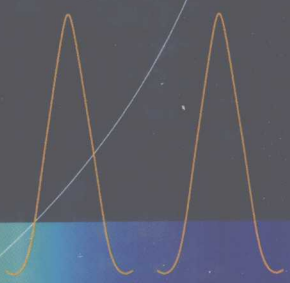


Francis T. S. Yu
Shizhuo Yin

# *Photorefractive Optics*

## Materials, Properties, and Applications



# Photorefractive Optics

*Materials, Properties, and Applications*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# Preface

Photrefrative optics is a rapidly growing, fascinating technology in modern optics which offers a myriad of potential applications. These applications can be envisioned as applied to high-capacity optical memories, dynamic hologram formations, massive interconnections, and high-speed tunable filters, as well as true-time relay lines for phase array antenna processing. This book provides comprehensive coverage of the basic material aspects, optical properties, devices, and numerous ingenious potential applications. This text provides state-of-the-art information on photorefractive optics. The book is written by a collection of world experts in this field, which are well represented by countries such as United States, Japan, Russia, Ukraine, China, France, Germany, Australia, and Denmark.

The book contains 16 selected chapters that begin with the standard photorefractive models, optical properties, wave mixing, hologram formation memories, three-dimensional data storage dynamic, interconnections, space-time processing, application of photoreflective material to wavefront connection and to femtosecond lasers. Finally, this book concludes with a chapter discussing the dynamic process of photoreflective fibers.

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