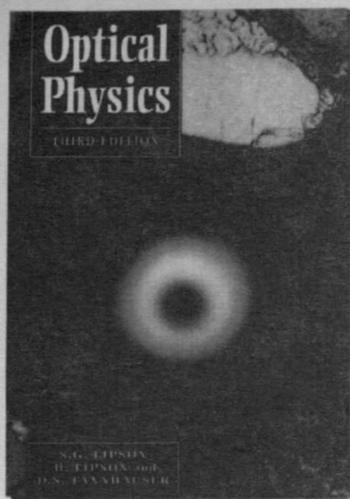


PINPOINT YOUR FUTURE  
with CAMBRIDGE BOOKS



## Optical Physics

Third Edition

**S.G. Lipson, H. Lipson, and D.S. Tannhauser**

*Praise for the Second Edition:*

“...an up-to-date survey of modern optics...it will be an excellent choice of text for...a course in optics.”

– *Applied Optics*

1995 515 pp.  
43047-X Hardback \$84.95  
43631-1 Paperback \$34.95

## Optical Polarization of Molecules

**Marcis Auzinsh and Ruvin Ferber**

Starts with a review of molecular angular momentum before considering resonant absorption, fluorescence, photodissociation, and collisions and static fields.

*Cambridge Monographs on Atomic, Molecular, and Chemical Physics 4*

1995 321 pp.  
44346-6 Hardback \$84.95

## Optical Methods of Engineering Analysis

**Gary L. Cloud**

Efficiently integrates optics theory with the development of optical methods.

1995 515 pp.  
45087-X Hardback \$79.95

## Design Issues in Optical Processing

**John N. Lee, Editor**

Provides a detailed review of key issues in the design, evaluation, and implementation of practical systems for signal processing and optical interconnection.

*Cambridge Studies in Modern Optics 16*

1995 292 pp.  
43048-8 Hardback \$59.95

## Optical Effects of Ion Implantation

**P.D. Townsend, P.J. Chandler, and L. Zhang**

Gives a detailed description of the factors and processes that govern the optical properties of ion implanted materials, as well as the devices that can be produced in this way.

*Cambridge Studies in Modern Optics 13*

1994 294 pp.  
39430-9 Hardback \$54.95

*Now in paperback...*

## Photodissociation Dynamics

Spectroscopy and Fragmentation of Small Polyatomic Molecules

**Reinhard Schinke**

“...destined to become standard reading for graduate students about to embark on research careers in chemical dynamics...”

– *Jim Baggott, Science*

*Cambridge Monographs on Atomic, Molecular, and Chemical Physics 1*

1993 432 pp.  
38368-4 Hardback \$94.95  
48414-6 Paperback \$39.95

*Available in bookstores or from*

**CAMBRIDGE  
UNIVERSITY PRESS**

40 West 20th Street, New York, NY 10011-4211

Call toll-free 800-872-7423

MasterCard/VISA accepted. Prices subject to change.

Web site: <http://www.cup.org>

# A NEW BENCHMARK IN OPTICS

*Cambridge University Press is extremely pleased to  
announce the publication of*

## **Optical Coherence and Quantum Optics**

**Leonard Mandel, University of Rochester**

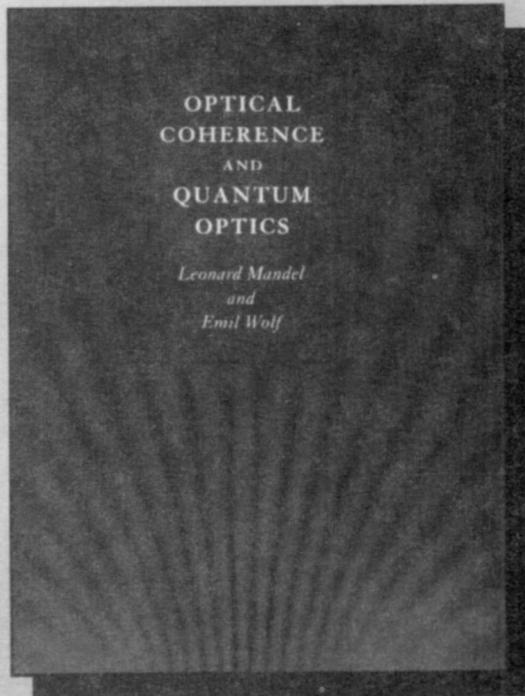
**Emil Wolf, University of Rochester**

Written by two of the world's most highly regarded optical physicists, this book is a systematic treatment of the broad area that deals with the coherence and fluctuation of light. The authors begin with a review of probability theory and random processes, and follow this with a thorough discussion of optical coherence theory within the framework of classical optics. They next treat the theory of photoelectric detection of light and photoelectric correlation. They then discuss in some detail quantum systems and effects. The book closes with two chapters devoted to laser theory and one on the quantum theory of non-linear optics. This book is required reading of all physicists and engineers working in optics.

1995 c. 1100 pp.

4 halftones 290 line diagrams

41711-2 Hardback \$49.95



*Available in  
bookstores or from*

## **CAMBRIDGE UNIVERSITY PRESS**

40 West 20th St., New York, NY 10011-4211  
Call toll-free 800-872-7423. Web site: <http://www.cup.org>  
MasterCard/VISA accepted. Prices subject to change.

## Information for Contributors

1. Manuscripts must be written in English. All manuscripts will be referred to acknowledged experts in the subject. Only those receiving favorable recommendations from the referees will be accepted for publication. Manuscripts may be sent to any Board member, any Associate Editor or the Editor.
2. Manuscripts should be double spaced, on one side of good grade paper, allowing a reasonable left-hand margin. An original and two copies should be submitted with the author's full postal address, phone and/or fax numbers, position, and affiliations. Authors are urged to send in their final manuscripts on disks as well as on hard copy.
3. The title and section headings should highlight the significant points. A short abstract should precede the main text.
4. One copy of photographs, prints or transparencies of good quality and unmarked should be submitted. Where lines or lettering are to appear on the photograph, an additional print should be supplied appropriately marked. Each should have, lightly written on the back, the author's name, the figure number and an indication of which is the top of the picture.
5. One copy of each line diagram should be submitted at approximately twice final size and unlettered. Diagrams must be drawn in indian ink on plain white or transparent paper. A second copy should be supplied with lettering included. The author's name and the figure number should be written on this copy.
6. Tables should be typewritten on separate sheets. Avoid, where possible, very wide tables.
7. References and footnotes should be cited according to the Harvard (Author/date) system, also known as the "British form". In the text, author and year are cited in parentheses e.g. "... was found by McCarthy (1980, 1980a)..." or "(Emmett *et al.* 1972)". Full references are listed in alphabetic order at the end of the paper. References are not numbered. An example of a reference list is:  
  
DEUTSCH, C. & KLARSFELD, S. 1973 *Phys. Rev. A* 7, 2081.  
NICHOLSON, D.R. 1983 *Plasma Theory* (John Wiley, New York).  
OOMURA, H. *et al.* 1982a *Res. Rep. ILE*, ILE-8207p.  
OOMURA, H. *et al.* 1982b *Trans. Ans.* 43, 617.  
  
Note that the year of publication appears after the author's name. If possible, all authors names should be listed in preference to "*et al.*" If one author or team is referred to more than once in any year, the letters a, b, etc., should be added after the year to distinguish the individual references.
8. Correction to proofs should be restricted to printers' errors only. Authors are entitled to 25 offprints of their article free of charge. Additional offprints may be purchased if they are ordered on the form sent with the proofs.

ISSN 0263-0364

© 1995 Cambridge University Press

Printed in the United States of America

Cambridge University Press

40 West 20th Street, New York, NY 10011, USA

The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU

10 Stamford Road, Oakleigh, Melbourne 3166, Australia

# LASER AND PARTICLE BEAMS

## Pulse Power and High Energy Densities

Volume 13, Number 3, 1995

**Mark A. Prelas (Univ. of Missouri, Columbia, MO, USA):** Lasers with combined nuclear pumping 351

**R.W. John (Max-Born Institut, Berlin, Germany):** The inversion condition for the X-ray Balmer- $\alpha$  transition in consideration of the modeled time-dependent Lyman- $\alpha$  reabsorption in a rapidly recombining laser-produced plasma 365

**Mostafa Hemmati (Arkansas Tech Univ., AR, USA):** Electron shock waves moving into an ionized medium 377

**Shigeo Kawata (Nagaoka Univ. of Tech, Nagaoka, Japan):** Inhomogeneous mixing of D and T fuels in inertial confinement fusion 383

**N.K. Gupta and V. Kumar (Bhabha Atomic Research Center, Bombay, India):** Angular dependence of  $M$  and  $N$  band radiation and the effect of angular anisotropy on the total conversion efficiency of X rays emitted from a laser irradiated gold foil 389

**W. Brunner and R.W. John (Max-Born Institut, Berlin, Germany):** Time dependence of the inversion condition and optimized X-ray emission in recombining laser-produced plasmas 403

**J. Hecht, D. Ofer, U. Alon, D. Shvarts (Nuclear Research Centre Negev, Beer-Sheva, Israel), S.A. Orszag (Princeton Univ., Princeton, NJ, USA), D. Shvarts, and R.L. McCrory (Univ. of Rochester, Rochester, NY, USA):** Three-dimensional simulations and analysis of the nonlinear stage of the Rayleigh-Taylor instability 423

**S. Eliezer (Politech. Univ. of Madrid, Madrid, Spain and SOREQ N.R.C., Yavne, Israel), H. Hora (CERN, Geneva, Switzerland), E. Kolka, H. Szichman (SOREQ N.R.C., Yavne, Israel), and F. Green (CSIRO, Lindfield-West NSW, Australia):** How double layers accelerate charged particles 441

**CAMBRIDGE**  
UNIVERSITY PRESS



0263-0346(199508)13:3;1-Y