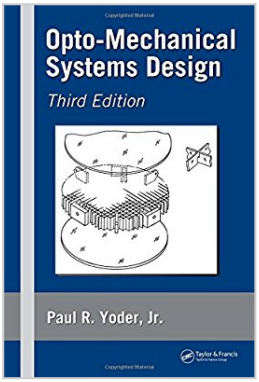

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Extensively revised and updated, this Third Edition reflects the massive growth and advancement achieved in the field over the past few years. It systematically examines the building blocks for new optical instruments and details new tools and techniques for designing, building, and testing optical systems hardware. The book includes revised, broad-based standards, equations for designing 26 types of prisms and lens, mirror, and prism mounts, state-of-the-art examples of designs for large mirrors and their mounts, and an expanded chapter that consolidates information on the design and mounting of metal mirrors. New sections include special protective coatings, manufacturing techniques, mounting lenses on flexures, and techniques for aligning lenses and lens systems in addition to two new chapters: one on designing and mounting small mirrors, gratings, and pellicles; the other, on analysis methods including damage and failure analysis.

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- Sales Rank: #1957642 in Books
- Brand: Brand: CRC Press
- Published on: 2005-12-09
- Original language: English
- Number of items: 1
- Dimensions: 1.70" h x 7.32" w x 10.16" l, 3.60 pounds
- Binding: Hardcover
- 864 pages

Editorial Review

Review

"This is a great starting point and reference tool for engineers coming into this field. …it gives a concise review of metal mirrors identifying the key design and manufacturing practices that have been developed across the industry through the past two decades. The extensive list of references provides original source data for further reading on any topic."
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About the Author

Paul Yoder (BS physics, Juniata College, Huntingdon, Pennsylvania, 1947, and MS physics, Penn State University, University Park, Pennsylvania, 1950) learned optical design and opto-mechanical engineering at the U.S. Army’s Frankford Arsenal (1951–1961). He then applied those skills at Perkin-Elmer Corporation (1961–1986) and served the optical community as a consultant in optical and opto-mechanical engineering (1986–2006). A fellow of the OSA and SPIE, Yoder has authored numerous chapters on opto-mechanics, published more than 60 papers, been awarded 14 U.S. and several foreign patents, and taught more than 75 short courses for SPIE, U.S. government agencies, and industry.

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