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Fizeau Interferometer for Curved Surfaces; 1.3.12. Testing Concave and Convex Surfaces; 1.4. Haldinger Interferometer; 1.4.1. Applications of Haidinger Fringes
1.4.2. Use of Laser Source for Haidinger Interferometer1.4.3. Other Applications of Haidinger Fringes; 1.5. Absolute Testing of Flats; Chapter 2. Twyman-Green Interferometer; 2.1. Introduction; 2.2. Beam-Splitter; 2.2.1. Optical Path Difference Introduced by the Beam Splitter Plate; 2.2.2. Required Accuracy in the Beam Splitter Plate; 2.2.3. Polarizing Cube Beam Splitter; 2.2.4. Nonpolarizing Cube Beam Splitter; 2.3. Coherence Requirements; 2.3.1. Spatial Coherence; 2.3.2. Temporal Coherence; 2.4. Uses of a Twyman-Green Interferometer; 2.4.1. Testing of Prisms and Diffraction Rulings
2.4.2. Testing of Lenses2.4.3. Testing of Microscope Objectives; 2.5. Compensation of Intrinsic Aberrations in the Interferometer; 2.6. Unequal-Path Interferometer; 2.6.1. Some Special Designs; 2.6.2. Improving the Fringe Stability; 2.7. Open Path Interferometers; 2.7.1. Mach-Zehnder Interferometers; 2.7.2. Oblique Incidence Interferometers; 2.8. Variations from the Twyman-Green Configuration; 2.8.1. Multiple Image Interferometers; 2.8.2. Interferometers with Diffractive Beam Splitters; 2.8.3. Phase Conjugating Interferometer; 2.9. Twyman-Green Interferograms and their Analysis
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3.5. Double-Focus Interferometer

Sommario/riassunto

The purpose of this third edition is to bring together in a single book descriptions of all tests carried out in the optical shop that are applicable to optical components and systems. This book is intended for the specialist as well as the non-specialist engaged in optical shop testing. There is currently a great deal of research being done in optical engineering. Making this new edition very timely.