

Editorial Board:

Zygmunt Bodnar — Chairman, Miron Gaj, Bedřich Havelka, Roman Ingar-den, Bohdan Karczewski, Joachim Klebe, Jan Matysiak, Maksymilian Pluta, Zbigniew Puzewicz, Antoni So-jecki, Szczepan Szczeniowski, Bogu-śława Trzebiatowska

Editor in Chief — Miron Gaj

Secretary — Grażyna Mulak

Associate Editor — Ireneusz Wilk

Editorial Office:

Institute of Physics, Technical Uni-versity of Wrocław, 50-370 Wrocław, Wybrzeże Wyspiańskiego 27, Poland.

Publisher:

Technical University of Wrocław (Po-litechnika Wrocławska) 50-370 Wroc-ław, Wybrzeże Wyspiańskiego 27, Poland.

In addition to larger original papers brief reports will be published of the author's own research work. The report should be set out according to the above guide lines.

The Editorial Board invites the readers to send over any remarks or observations referring to the publications which will appear in the OPTICA APPLICATA. The correspondence of essential importance will be published in a separate column dealing with letters to the Editor.

Review of matter

Application of the diffraction theory, quantum optics, problems in radiation coher-ence, light sources, holography and its application, scientific photography, methods of image reconstruction, optical application of Fourier transforms, theory of optical sys-tems, criteria of optical image evaluation, optical materials, technology of manufactur-ing optical elements, aspheric optics, optical properties of solids photo- and radiometry, problems in spectroscopy, non-linear optics, optical data processing, optical measure-ments, fibre optics, optical instrumentation, interferometry, microscopy, nonvisible optics, automation of optical computing, optoelec-tronics, colorimetry, optical detectors, elip-sometry and photoelasticity.

Contents

The Influence of Thermal Stress in Glass Disks on the Intensity Distribution in the Diffraction Image of a Point and on the Transfer Function, K. PIETRASZKIEWICZ	107
On the Partially Coherent Near and Far Field Diffraction, M. ZAJĄC	113
Transformations, Multiple Filtering and Asso-ciative Processes in Thick Media for Con-tinuous Image Structures, R. GÜTHER and S. KUSCH	121
Probabilistic Model for Shape Errors of Spher-ical Surfaces in Optical Elements, M. LEŚ-NIEWSKI	131
The Electronic Microbalance for Atomic Beam Density Measurements, T. DOHNALIK, A. MURYN, M. STANKIEWICZ, M. SZYMA-NOWSKA	135
On Influence of the Triangle Striae on the Strehl Definition of the Aberrational Optical System, F. RATAJCZYK	137
The Effects of Spherical Aberration on an Elec-tron Beam with Gaussian Current Density Distribution, A. MULAК, W. SŁÓWKO . .	141

Содержание

Влияние температурных напряжений в сте-клянных дисках на распределение ин-тенсивности в дифракционном изображе-нии точки и передаточную функцию, К. Петрашкевич	107
О частично когерентной дифракции близкого и далекого полей, М. Заёнец	113
Трансформации, многократное фильтрование и ассоциативные процессы в плотных сре-дах для сплошных структур изображений, Р. Гитер, С. Куш	121
Вероятностная модель для погрешностей формы сферических поверхностей оптиче-ских элементов, М. Лесьневски	131
Электронные микровесы для измерения плотности атомной частицы, Т. Дохна-лик, А. Мурын, М. Станкевич, М. Шына-ровска	135
Влияние треугольных полос на светлоту Штреля абберационных оптических сис-тем, Ф. Ратайчик	137
Влияние сферической абберации на электрон-ный пучок с гауссовым распределением плотноститока, А. Мулак, В. Служко . .	141

ELEVENTH CONGRESS
OF THE INTERNATIONAL COMMISSION
FOR OPTICS

SPONSOR: International Commission for Optics. **DATE:** September 10--17, 1978

TOPICS:

1. Vision
2. Image analysis
3. Optical processing
4. Physical Optics

ORGANIZATION: Spanish Committee of the
International Commission for Optics

INFORMATION: J. Bescós
Sociedad Española de Optica (S.E.D.O.)
Serrano, 121 Madrid -- 6 Spain.