

光学学报 第一卷 1981 年

总 目 录

第 一 期

我国光学科学技术的若干进展	王大珩	(1)
白光信息处理的现代进展	杨振寰等	(13)
计算光束衍射传输的一种新方法	邓锡铭等	(25)
光频谱谐振腔的准几何理论	王之江等	(31)
光学方法清晰周期性图像	董碧珍等	(37)
产生非球面的新机构原理	潘君骅	(43)
衍射光栅刻划机	梁浩明等	(51)
光学系统像差的实时补偿	庄松林等	(59)
关于提高仪器总体设计水平的问题	唐九华	(67)
外场作用下玻璃的光学常数的变化	于福燕等	(57)

研究简讯及其它

双片型傅里叶变换透镜	王民强	(89)
波导电光棱镜	李玉善	(93)
第十一届国际量子电子学会议学术委员会工作介绍	沈元壤	(12)

第 二 期

密着网屏的新发展和应用	刘华光	(97)
电子与电子相互作用辐射	王之江	(115)
谐振腔的感度	方洪烈	(121)
关于光线的两种弯曲的讨论	欧 发	(127)
莫尔现象、干涉术和全息术	顾去吾	(135)
从再现三维图像论胶片的全息信息容量	程路等	(143)
有机染料溶液中简并的四波混频和位相复共轭研究	吴存恺等	(155)
扫描法布里-珀罗光学双稳态装置	李浮飞等	(167)

研究简讯及其它

利用 Nd:YAG 激光晶体的瞬态吸收研究其有效的滤光材料	叶碧青等	(175)
关于行扫描仪的目标分辨能力	张孝霖	(181)
一种适用于 TEACO ₂ 激光器的谐振腔	楼祺洪	(189)
第十二届国际光学学会全会 (ICO-12) 和天文光学会议	黎 凤	(120)
全国激光新材料协作交流会在厦门举行	张 英	(126)
“生物医学科学的光学”讨论会 (ICO-12 分会议)	黎 凤	(133)
中国光学学会颜色光学首次学术交流会在青岛召开	乙 民	(174)

第 三 期

非相干光三维成像	王之江等	(193)
环形染料激光腔的分离参数设计方法	张光寅	(203)
光泵远红外激光器中的光束匹配	傅恩生等	(209)
傅里叶变换准干涉法	刘立人	(215)

无透镜傅里叶变换及其在三维干涉测量中的应用	陈岩松等	(223)
红外光学系统中能量弥散的计算	徐尧洲	(229)
X 射线成像望远镜光学设计	匡裕光	(238)
球面范成法形成一般原理及范成表面形状精度分析	杨 力	(249)
在热晕中蒸发对气溶胶有效吸收系数的影响	莫知本	(259)
用光栅耦合器测量波导薄膜参数的一种方法	徐德维	(265)
光学薄膜的自动设计	范正修等	(273)

研究简讯及其它

放电激励 XeF 激光器输出特性研究	傅淑芬等	(281)
具有倒锥底面的圆筒形空腔的发射率	谢顺康	(285)
《量子电子学》书评	王明常	(228)
《非线性光学》书评	沃新能	(238)
高速摄影及光子学学科分组和专业委员会成立大会在苏州召开	乙 民	(248)

第 四 期

六束亚毫微秒高功率钕玻璃激光系统	邓锡铭等	(289)
放电激励 XeF 激光器动力学的计算机模拟	陈建文等	(299)
波导激光器调谐宽度的分析	王明常等	(305)
CO 选支激光器中的光-电流效应	王裕民等	(311)
在弱轴向磁场中的氦-镭激光	周卓政等	(317)
非相干光照明下有像差的自由度	陶纯堪	(323)
闪耀全息光栅槽轮廓的控制方法	祝绍箕	(331)
光电非线性 Michelson 光学双稳态装置	李洋飞等	(336)
用四波混频产生高效率衍射极限输出的染料激光	范俊颖等	(341)
存在位相随机起伏时胶片的全息信息容量	程 路	(347)
单模波导参数的双偏振测量	金锋等	(352)
介质波导并矢格林函数的本征模展开式	范俊清	(357)

研究简讯及其它

共线型 CS ₂ 微微秒光学快门	陈淑琴等	(365)
定靶方法探讨	沙存孝	(371)
在强激光下 Ge 平行板的动态 F-P 干涉效应	李元恒	(377)
增益介质的非线性折射率	范滇元	(379)
光栅鉴定会简讯	王国华等	(310)
第一届全国光学玻璃学术报告会	乙 民	(322)

第 五 期

傍轴光束传输的动力学分析	邓锡铭等	(385)
用光线矩阵元表达的光学传递函数	范滇元	(395)
应用激光二极管和全息元件的光学图像识别系统	David Casasent 等	(401)
用旋转照相法制造相息图	陈岩松等	(411)
角隅棱镜干涉仪中光的偏振与干涉	沃敏政等	(415)
超音速绕流 Mach-Zehnder 干涉图分析的 Abel 变换	丁培柱等	(423)
利用本征色差校正二级光谱	史光辉	(433)

研究简讯及其它

同步泵浦可调谐超短脉冲双路激光器	崔俊文等	(441)
------------------------	------	-------

放电激励 N_2 激光器输出特性研究	陈建文等	(445)
Nd:YAG 声光瞬态锁模激光器	李士英等	(451)
LH-300 型激光全息干涉仪	王文桂	(457)
用傅里叶全息图进行单词互译的实验	凌德洪等	(463)
点全息图中文字存储极限	宋维光等	(469)
脉冲式零位光栅和差分式零位光栅	祝继彬等	(475)

第 六 期

无机玻璃的部分色散	于福熹等	(481)
用傅里叶频谱的偏振滤波作白光图像处理系统中的立体投影	母国光等	(493)
稀疏物体与连续物体的投影重构性质	王能鹤	(501)
透频显微镜	谭维翰等	(509)
电激励 Ne-Xe-HCl 混合物的电子能量分布函数和输运系数	傅淑芬等	(523)
自注入调频染料激光器调频宽度研究	邓道群等	(531)
晶体非线性系数测量及 BNN 晶体的非线性光学性质	王文澄等	(537)
关于光学显微术和电子显微术中的相位恢复问题	顾本源等	(517)
CCD 刷式扫描成像系统的灵敏度分析	张孝霖	(543)

研究简讯及其它

测量光学系统焦平面能量分布的一种方法	邓锡铭等	(553)
超辐射触动 Q 开关获得高稳定激光输出	陈南斗等	(559)
快响应平面型热电探测器	冯锡洪等	(564)
用光学傅里叶变换方法对合成孔径雷达海洋波浪图像的频谱分析	张凤林	(569)
布儒斯特棱镜扩束器	许祖彦等	(575)
《激光原理》书评	王润文	(558)
集成光学学术交流会在桂林召开	黎 风	(500)
国家科委光学及应用光学学科组基础光学分组成立大会	乙 民	(499)
光学学报第一届编委会会议		(508)
中国光学学会第一届理事会常务理事及下属各专业委员会名单		(封三)
《光学学报》1981 年第一卷总目录和作者索引		(i)

ACTA OPTICA SINICA, Vol. 1, 1981

CONTENTS

No. 1

Progresses of optical science and technology in China	Wang Daheng	(1)
Recent advancement in white-light optical information processing	F. T. S. Yu Zhuang Songlin Mu Guoguang	(13)
A new method to calculate the diffractive transmission of a light beam	Deng Ximing Fang Honglie Lin Weiping	(25)
A quasi-geometric theory of optical resonators	Wang Zhijiang Fang Honglie	(31)
Clearing images with a periodic structure by optical method	Dong Bizhen Zheng Shihai Pan Shaohua Li Qin	(37)
Principles of new mechanisms for producing aspherical surfaces	Pan Junhua	(43)

- The diffraction grating ruling engines
 *Liang Haoming Zhuang Kui Zhang Qingying Yang Houmin* (51)
- The real-time compensation for the aberrations of optical system
 *Zhuang Songlin Jiang Baichuan Zheng Quan* (59)
- On problems towards the promotion of instrument layout design
 *Tang Jinhua* (67)
- Field effects on optical constants of glasses
 *Gan Fuxi Lin Fengying* (75)

Research Notes and Other

- A Fourier transform doublet lens
 *Wang Mingqiang* (89)
- The waveguide electro-optic prism
 *Li Yushan* (93)
- Brief introduction of the work in Program Committee of the XI IQEC
 *Y. B. Shen* (12)

No. 2

- Recent development and application of contact screens
 *H. K. Liu* (97)
- Light radiation by electron-electron interaction
 *Wang Zhijiang* (115)
- Sensitivity of resonators
 *Fang Honglie* (121)
- Discussion on the two kinds of deflection of the light ray
 *Ou Fa* (127)
- Moire phenomenon, interferometry and holography
 *Gu Quoru* (135)
- On the information capacity of holographic film in terms of 3-dimensional reconstructed image

 *Cheng Lu Li Zhengming Zhang Bingquan* (143)
- Investigation of degenerate four-mixing and phase conjugation in organic dye solutions

 *Wu Cunkai Fan Junyin Wang Zhiying* (155)
- Scanning Fabry-Perot optical bistable devices
 *Li Chunfei Xu Jingchun* (167)

Research Notes and Other

- Investigation of filtering materials suitable to laser using transient absorption in Nd:YAG crystals

 *Ye Biqing Zha Guigen Ma Zhonglin* (175)
- On the target resolution on line scanners
 *Zhang Xiaolin* (181)
- A resonant cavity suitable for TEA CO₂ laser
 *Lou Qihung* (189)
- International conference and satellite meeting of the twelfth assembly of the international commission
 for optics
 *Li Feng* (120)
- National symposium on new laser materials held in Xiamen for technical exchange and cooperation

 *Zhang Ying* (126)
- Optics in biomedical sciences (ICO-12 satellite meeting)
 *Li Feng* (133)
- The first colour optics symposium by Optical Society of China held in Qingdao
 *Yi Mini* (174)

No. 3

- Non-coherent radiation 3-D imaging
 *Wang Zhijiang Wang Nenghe* (193)
- Method of separation parameters design for ring dye laser resonator
 *Zhang Guangyin* (203)
- Beam matching in optically pumped far infrared lasers
 *Fu Ensheng Cai Weiwan Wang Zhongshi* (209)
- Fourier-transform quasi-interferometry
 *Liu Liren* (215)
- The lensless Fourier-transform and its application to 3-D measurement

 *Chen Yansong Li Xiuying Li Cumei* (223)
- Calculation of the blurring of energy in infrared optical systems
 *Hsu Yaochou* (229)
- Optical design of a grazing incidence X-ray imaging telescope
 *Kuang Yueguang* (239)
- General principle of the precise spherical generation and the accuracy analysis of the resulting surface
 shape
 *Yang Li* (249)

- Influence of particle vaporization on effective absorption coefficient of aerosol for thermal blooming
 Gong Zhiben (259)
- A method for measuring the waveguide film parameters by grating couplers..... Xu Dewei (265)
- Automatic coating of optical thin films Fan Zhengxiu Qian Weizhen (273)

Research Notes and Other

- Radiant performance studies of discharge excited XeF lasers
 Fu Shufen Chen Jianwen Liu Miaocong (281)
- Emissivities of cylindrical cavities with reverse conical bases Xie Shunkang (285)
- «Quantum Electronics»..... Wang Mingchang (228)
- «Nonlinear Optics»..... Wo Xinneng (238)
- Establishing Meeting on the Branch of Discipline of High-Speed Photography and Photonics and the
 Speciality Committee held in Suzhou Yi Min (248)

No. 4

- The six-beam subnanosecond high power Nd:glass laser system Deng Xeming et al.; (289)
- Kinetic simulation of discharge-excited XeF laser. Chen Jianwen Fu Shufen (299)
- Analysis on tuning linewidth of the waveguide laser
 Wang Mingchang Wang Wucheng Chen Xinfen (305)
- Opto-galvanic effect observed in branch-selected CO laser
 Wang Yumin Gui Zhenxing Zhang Shunyi (311)
- Helium cadmium laser in an axial weak magnetic field
 Zhou Zhuozhen Qiu Mingxin Zhen Gubi (317)
- Degrees of freedom of aberrated images under the illumination of incoherent light..... Tao Chunkan (323)
- A method for controlling the groove shapes of blaze holographic gratings Zhu Shaoji (331)
- An electrooptic nonlinear Michelson optical bistable devices Li Chunfei Ji Jiarong (336)
- High efficiency and diffraction-limited dye laser beam generated by four-wave mixing
 Fan Junyin Wu Cunkai Wan Zhixing (341)
- The holographic information capacity of films in the existence of random phase fluctuations.....
 Cheng Lu (347)
- Two polarization measurements of single-mode waveguide parameters..... Jin Feng Li Yushan (352)
- The eigen-mode expansions of dyadic Green's functions for dielectric waveguides..... Fan Junqing (357)

Research Notes and Other

- A collinear CS₂ picosecond optical gating Chen Shugien et al. (365)
- An approach to the method of vignetting determination Sha Cunxiao (371)
- Dynamic Fabry-Perot interference effect of parallel Ge by intense laser..... Li Yuanheng (377)
- Nonlinear index in the gain medium Fan Dianyuan (379)
- High lights from grating-expertizing meeting..... Wang Guohua et al, (310)
- The first national conference of optical glasses..... Yi Min (322)

No. 5

- Dynamic analysis on transmissions of paraxial light beams Deng Xeming Lin Weiping Fang Honglie (385)
- Optical transfer function in terms of ray matrix elements Fan Dianyuan (395)
- A laser diode/HOE pattern recognition system D. Casasent et al. (401)
- Make up Kinoform by the method of rotation-photograph.....
 Chen Yansong Jiang Changshan Ming Hai (411)
- Polarization and interference in Michelson interferometer consisted of two corner-prisms

- *Wo Mingzhen Wang Nenghe Wang Zhijiang* (415)
 The Abel transformation of Mach-Zehnder interferogram analysis supersonic encircling flow.....
 *Ding Feishu Pan Shoufu* (423)
 Correction of secondary spectrum with intrinsic chromatic aberration*Shi Guanghui* (433)

Research Notes and Other

- Tunable synchronously pumped ultrashort pulsed dual-beam lasers
 *Cui Junwen Li Qun Hui Lingkai Liu Songhao* (441)
 Study of performance for discharge excited N_2 laser.....*Chen Jianwen Fu Shufen Liu Miaohong* (445)
 A transient acousto-optically modelocked Nd:YAG laser.....*Li Shuying Chen Shaohu Xie Ziming* (451)
 Model JQY-300 laser holographic interferometer.....*Wang Weiqui* (457)
 The experiments of word-translation with Fourier hologram*Ling Dehong Zhang Zhenghua Wang Ce* (463)
 Memory limit of point holographic images.....*Song Weiguang et al.* (469)
 Pulsed mode and differential mode zero-setting gratings*Zhu Jibin Hu Xin* (475)

No. 6

- The partial dispersion of inorganic glasses*Gan Fuxi Lin Fengying* (481)
 White-light stereoprojection through Fourier spectrum polarization
 *Mu Guoquan C. K. Ching H. K. Liu* (493)
 The reconstruction properties of the dilute objects and the extended objects from projections
*Wang Nenghe* (501)
 Electron energy distributions and transport coefficients in electrically excited Ne-Xe-HCl
 *Fu Shufen Chen Jianwen* (523)
 Investigation of the tuning range of self-injected tunable lasers
 *Deng Daoqun Pan Shaohua Xu Zuyan et al.* (531)
 Measurement of SHG coefficients of crystals and nonlinear optical properties of BNN crystal
 *Wang Wencheng Wang Gangmin et al.* (537)
 A frequency-combined microscope.....*Tan Weihai Wang Rumwen* (509)
 On the phase retrieval problem in optical and electronic microscopy*Gu Benyuan Yang Guozhen* (517)
 Sensitivity analysis of CCD pushbroom scanning imaging system*Zhang Xiaolin* (543)

Research Notes and Other

- Measurement of energy distribution on focal plane of imperfect processed optical system
 *Deng Ximing Zhao Qingchun* (553)
 Highly stabilized laser giant pulse output using superradiance as trigger signal of the Q-switch.....
 *Chen Nandou Zhao Yanheng et al.* (559)
 Fast-response surface electrode pyroelectric detector.....*Feng Xiqi Pan Jincui* (564)
 Spectrum distribution of sea waves analysed using optical Fourier transforms from seasat SAR images.....
 *Zhang Fenglin* (569)
 A Brewster-priem beam expander*Xu Zuyan Deng Daoqun* (575)
 «Principles of Lasers».....*Wang Rumwen* (558)
 Symposium on the Integrated Optics held in Gulin.....*Li Feng* (500)
 Establishing meeting on the Branch of Discipline of Fundamental Optics held*Yi Min* (499)
 The First Meeting of Acta Optica Sinica Editorial Committee, Kunming (508)
 The name list of the First Board of Directors and Permanent Directors subsidiary and Speciality Committee,
 the Optical Society of China..... (inside back)
 «Acta Optica Sinica», Vol. 1, 1981, Contents and Authors Index (i)