

# 激光

(月刊)

第七卷 第十二期

(总第 48 期)

一九八〇年十二月

编辑 《激光》编辑委员会  
(上海 8211 邮政信箱)  
(邮政编码: 201849)

出版 上海科学技术出版社  
印刷 上海商务印刷厂

国内发行 上海市报刊发行处  
国内订阅 全国各地邮局  
国外发行 中国国际书店  
(北京 399 信箱)

代号: 国内 4—201 定价: 0.33 元  
国外 M159

## 目 录

- 观测到的辐射强度到发射系数的径向分布的变换  
——Abel 变换的一种数值解法……丁培柱 潘守甫 (1)
- 小 Fresnel 数轴对称光腔场分布计算  
…………… 冯大任 邹海兴 (7)
- 50 毫瓦大功率氦-镉白光激光器的研究……傅云鹏 (10)
- “偏频锁定”无调制的稳定激光器……施汉谦 (14)
- 高级受激喇曼散射功率、脉宽及光混频观察  
…………… 路扶群等 (19)
- 输出耦合对染料激光器的影响……赵梅村 (22)
- 用于高能激光系统的高速扫描转镜……胡绍衣 (27)
- 有稳定回路的纤维光学角速度传感器……阎万昌 (32)
- 二维激光扫描方法显示、记录文字……顾国安 (36)
- 折迭式 CO<sub>2</sub> 激光器各电极电位分析和高压变压  
器绝缘的加强……甄艳芬等 (40)
- 10 兆瓦脉冲大功率 CO<sub>2</sub> 激光系统及运转特性 (9)
- 双光子共振增强的简并四波混频 (42) 放电泵浦  
N<sub>2</sub><sup>+</sup> 激光器 (43) 高气压 XeBr 激光器 (44) 小喉  
道喷管气动激光器的实验研究 (45) 横向放电引发的  
氟化氢化学激光器 (45) 用微泡胶片测量 CO<sub>2</sub> 激  
光模式 (46) LiNdP<sub>4</sub>O<sub>12</sub> 的发射截面及其室温激  
光特性 (47) 掺镁 LiNbO<sub>3</sub> 参量振荡器 (48) 大功率 CO<sub>2</sub> 激  
光 CFVC 型能量计 (49) 强脉冲 CO<sub>2</sub> 激光破坏金膜反射镜  
的实验研究 (50) CO<sub>2</sub> 激光稳频 (52) 光学图象全息相减处  
理 (53) 用实时法测量金属圆板的变形 (54) 用工业电视测  
量微微秒激光脉冲横模分布 (56)
- 第五届全国激光学术报告会在南京举行 (6) 激光  
染料——若丹明 6G (21) 《激光》杂志 1980 年 (总  
37~48 期) 总目录 (58)

简  
讯

## Contents

- Transformation of observed radiances into radial distribution of emission coefficients for plasmas—A numerical solution of Abel transformation.....*Ding Peizhu, Pan Shoufu* (1)
- Calculation of laser field distribution of an axially symmetrical resonator with small Fresnel number.....*[Feng Darun], Zou Haixin* (7)
- Study of 50 mW high power helium-cadmium white light laser ..... *Fu Yunpeng* (10)
- Bias frequency-locked unmodulated stable laser ..... *Shi Hanqian* (14)
- Observation on power, pulse width and frequency-mixing for high-order stimulated Raman scattering.....*Lu Yiqun et al.* (19)
- Dependence of dye laser on its output coupling..... *Zhao Meicun* (22)
- High-speed scan rotating mirrors for high energy laser systems ..... *Hu Shaoyi* (27)
- Fiber optic angular rate sensor with stable circuit.....*Yan Wanchang* (32)
- Display and recording of Chinese characters with two dimensional laser scanning .....*Gu Guoan* (36)
- Potential analysis of electrodes for folded CO<sub>2</sub> laser and enhancement of insulation of high-voltage transformers.....*Zhen Yanfen et al.* (40)

### SCIENCE NOTES

- 10GW high power CO<sub>2</sub> laser system and its characteristics of operation (9) Two photon resonance enhanced degenerated four wave mixing (42) A discharge pumped N<sub>2</sub> laser (43) A high pressure XeBr laser (44) Experimental study on a gasdynamic laser with narrow throat grid nozzles (45) Transverse discharge initiated HF chemical laser (45) CO<sub>2</sub> laser mode measured with microporous-films (46) Room temperature laser characteristics and emission cross section of LiNdP<sub>4</sub>O<sub>12</sub> (47) MgO:LiNbO<sub>3</sub> optical parametric oscillator (48) Model CFVC calorimeter for high power CO<sub>2</sub> lasers (49) Experimental research on intense pulsed CO<sub>2</sub> laser damage of gold-coated mirrors (50) Frequency-stabilization of CO<sub>2</sub> lasers (52) Holographic subtraction processing of optical images (53) Real-time measurement of deformation of metal disc (54) Measurement of distribution for single transverse-mode of picosecond laser pulse by industrial television (56)

### LETTERS

- The Fifth National Laser Symposium held in Nanjing (6) Rhodamine 6G laser dyes (21) Annual cumulative contents of volume 7, Laser Journal (1980) (58)