

激光

(月刊)

第八卷 第四期

(总第 52 期)

一九八一年四月

目 录

- 环激光中 Langmuir 流效应的理论分析 姜亚南 (1)
- 高功率脉冲激光时间特性的解析描述 杨涵倩等 (9)
- 在电子束控制放电 KrF* 激光器中发生电离不稳定性
的判据与讨论 郑承恩 (14)
- 脉冲 Xe 离子激光器 王玉芝等 (18)
- 1.06 微米激光束在玻璃中的自感生偏振变化效应
..... 张梅珍 邓 和 李成富 (22)
- 室温运转的 LiF 晶体 F₂ 色心激光器的实验研究
..... 王联治等 (25)
- 激光裂解气相色谱法对岩样内芳香烃丰度的研究
..... 朱昌明等 (28)
- 三氯化硼红外多光子吸收分离硼同位素过程中氟氯化
硼的生成 李丽等 (33)
- 相干反斯托克斯喇曼光谱学(CARS)···余晶 王兆永 (38)
- 脉冲金蒸气激光器(45) 激光触发火花隙的实验
研究(46) 钹玻璃棒柱面清洁处理对放大器增益的
影响(47) 用干涉法测量 ZF-7 玻璃非线性折射率
n₂(48) 衍射象在光束波面曲率测量中的应用
(50) CO₂ 激光光声光谱仪的研制(52) 空气支柱
减振全息摄影工作台(54) 采用整流型恒压变压器的 He-Ne
激光稳流电源(56) 用刀口扫描法快速测定高斯光束的斑点
尺寸(58) 激光扫描器的精度分析(59) “光学-80”国际讨
论会评介(60)

科学
札
记

简
讯

- 用 193 毫微米 ArF 准分子激光对 HgBr₂ 进行单
光子和双光子解离的研究(62) 激光裂解等离子计
量分析术在油田勘探中的应用(63) 超小型固体激
光器研制成功(8) 1.32μ 钪铝石榴石连续激光器(8) 陕西
省召开激光红外技术交流会(8) 上海市激光学会成立
“技术服务处”(32)

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)

国内 4-201 定价: 0.33 元

代号: 国外 M159

沪刊第 080 号

CONTENTS

- A theoretical analysis on Langmuir flow effects in the ring laser*Jiang Yanan* (1)
Analytical description of temporal characteristics for powerful laser pulses*Yang Hanchien et al.* (9)
Criteria and discussion on ionization instability in *e*-beam controlled discharge KrF* laser
..... *Zheng Chengen* (14)
A pulsed xenon ion laser..... *Wang Yuzhi et al.* (18)
Self-induced polarization change of 1.06 μ m laser beam in glasses
..... *Zhang Meizhen, Deng He, Li Chengfu* (22)
Experimental study on room temperature LiF crystal F₂ colour center lasers *Wang Lianzhi et al.* (25)
A study on the aromatic abundance in rock sample by laser-pyrolysis gas chromatography
.....*Zhu Cangmin et al.* (28)
The formation of boron fluoro-chloride in the separation of boron isotopes by multiphoton absorption
of BCl₃..... *Li Li et al.* (33)
Coherent anti-Stokes Raman spectroscopy (CARS) *Yu Bingkun, Wang Zhaoyong* (38)

SCIENCE NOTES

- A pulsed gold vapour laser(45) Experimental research on laser triggered spark gaps (46) Effects of
cleaning treatment of cylindrical surfaces of Nd-glass rods on the gain of laser amplifiers(47) Interfero-
metric measurement of nonlinear refractive index of ZF-7 glass(48) Application of diffraction imaging
in measuring the wavefront curvature of the laser beam(50) An opto-acoustic CO₂ spectrometer(52)
Holographic bench with air-supported absorber(54) A current-stabilized power supply for He-Ne lasers
using rectifier-type constant voltage transformer(56) Fast measurement of spot size of a Gaussian laser beam
by scanning knifeedge(58) Precision analysis of the laser scanner(59) "Optics 80" held in Hungary(60)

LETTERS

- One and two photon ionization of HgBr₂ with an excimer ArF laser at 193 nm(62) Application of laser
pyrolysis plasma stoichiometrical analysis in oil fields exploration(63) A miniature solid state laser
successfully developed(8) A CW YAG:Nd³⁺ laser at 1.22 μ m(8) Interchange meeting on laser and
infrared technology held in Shanxi province(8) Technical service formed by Laser Society of Shanghai(32)

LASER JOURNAL

(Monthly)

Vol. 8 No. 4

April 1981

Edited by: *Editorial Board, Laser Journal*

(P. O. Box 8211, Shanghai, China)

Published by: *Shanghai Press of Science and Technology*

Printed by: *Shang Wu Printing House, Shanghai*

Distributed by

Domestic: *Local Post Offices*

Foreign: *GUOZI SHUDIAN (P. O. Box 399,*

Beijing, China)
