

《激光》杂志 1981 年(总 49~60 期)总目录

	卷	期	总期	页		卷	期	总期	页
电磁场的梯度矢势与玻姆量子势	8	1	49	1	色心激光器及其可能的应用	8	2	50	43
反射镜热形变对激光器谐振腔参数的影响	8	1	49	5	脉冲声光主动锁模 Nd:YAG 激光器	8	3	51	1
高功率激光器用的折迭式共振腔	8	1	49	10	铝酸钇被动锁模激光器	8	3	51	4
腔倒空染料激光器	8	1	49	14	四磷酸铍锂的红外光谱研究	8	3	51	7
铜蒸气激光器	8	1	49	18	各种稀土离子对掺钕无机液体激光性能影响的研究	8	3	51	10
苯的二级相干反斯托克斯喇曼散射(CARS)	8	1	49	21	银离子空心阴极 4788 埃激光器	8	3	51	14
Nd:YAG 中热透镜效应与棒轴取向的关系	8	1	49	23	不均匀磁场中的氦-镉激光计算全息图及 Lohmann 全息图位相误差的修正	8	3	51	17
GaAs(100)面光栅皱折的形成	8	1	49	27	激光等离子体的光学显微诊断	8	3	51	23
全息干板漂白乳胶厚度起伏特性的研究及其相位滤波器的制备	8	1	49	30	激光相变硬化工艺参数的研究	8	3	51	26
用激光光谱法研究窗材料锗的光吸收	8	1	49	33	用红外光谱研究激光分离硼同位素的辐照产物	8	3	51	32
用扫描干涉仪观察 Ar ⁺ 激光器主动锁模的某些特性	8	1	49	35	激光麻醉的研究	8	3	51	35
全息文件存贮技术	8	1	49	39	经 He-Ne 激光照射的水稻芽中同功酶的电泳分析	8	3	51	39
第十一届国际量子电子学会会议简况	8	1	49	42	环激光中 Langmuir 流效应的理论分析	8	4	52	1
调 Q 系列脉冲激光器理论	8	2	50	1	高功率脉冲激光时间特性的解析描述	8	4	52	9
Ar-Kr-F ₂ 气体稳态放电性质的讨论	8	2	50	5	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	8	4	52	14
利用光频移效应实现激光冷却气体原子	8	2	50	10	脉冲 Xe 离子激光器	8	4	52	18
声光主动锁模氙离子激光器	8	2	50	13	1.06 微米激光束在玻璃中的自感生偏振变化效应	8	4	52	22
紫外光预电离 ArF 和 KrF 准分子激光器	8	2	50	17	室温运转的 LiF 晶体 F ₂ 色心激光器的实验研究	8	4	52	25
各向异性激光晶体的热-光性能	8	2	50	21	激光裂解气相色谱法对岩样内芳香烃丰度的研究	8	4	52	28
莫尔变换和位相测量(I)	8	2	50	27	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	8	4	52	33
光电管绝对灵敏度的标定	8	2	50	33					
激光斑纹的衍射和斑纹强度的测量	8	2	50	36					

	卷	期	总期	页		卷	期	总期	页
相干反斯托克斯喇曼光谱学 (CARS)	8	4	52	38	气体类透镜效应对 TEA CO ₂ 激光器锁模的影响	8	7	55	7
2800~4100 埃连续可调紫外激光器	8	5	53	1	光纤传输用的磁光隔离器	8	7	55	11
脉冲主动锁模和主被动锁模激光器	8	5	53	5	YAG:Nd 晶体中的残余应力和退火	8	7	55	15
钾原子的共振三光子电离	8	5	53	10	碱金属蒸汽灯内壁早期发黑的研究	8	7	55	21
LNP 晶体中 Nd ³⁺ 离子的电偶极跃迁强度	8	5	53	12	两次散斑干涉法	8	7	55	25
微微秒光闸	8	5	53	15	用计算机产生全息图	8	7	55	28
激光器锁模用的电光晶体调制器	8	5	53	19	HCN 激光器及亚毫米波波长的测量	8	7	55	32
激光模式的半色调检测方法	8	5	53	24	应用光学中几种光路调整的方法	8	7	55	35
碱金属泵浦灯的实验研究	8	5	53	28	脉冲激光焊接熔池中的缺陷	8	7	55	38
象平面全息术在全息显微镜中的应用	8	5	53	33	红宝石激光显微照射在细胞生物学中的应用	8	7	55	43
计算机全息术在非球面检验中的应用	8	5	53	37	上海的大气闪烁及其对激光应用的影响	8	7	55	47
CO ₂ -N ₂ -H ₂ O 激光体系的振动弛豫过程速率数据	8	6	54	1	相对论电子在周期磁场中的辐射频谱	8	8	56	1
基模热稳腔的简单设计计算方法	8	6	54	9	平行平面热稳定谐振腔	8	8	56	5
离轴球面波的传输性质和非稳定腔模的二维稳定性问题	8	6	54	13	对快门 Q 开关调 Q 的分析	8	8	56	12
波长 1.051 微米和 1.32 微米的连续 La _{0.1} Nd _{0.9} P ₅ O ₁₄ 激光器	8	6	54	18	200 兆比特/秒注入式 GaAs-GaAlAs 双异质结激光器的调制实验	8	8	56	19
GaAlAs/GaAs DH 激光器的红外透射研究	8	6	54	23	用强脉冲预电离提高激发染料激光器的闪光灯泵浦性能	8	8	56	23
染料调 Q 红宝石激光器阈值及输出能量与铬离子浓度的关系	8	6	54	28	虚共心腔变能量打孔的研究	8	8	56	26
激光束的空间调制	8	6	54	32	脉冲激光焊接参数研究	8	8	56	31
激光相位测距原理应用于测波浪剖面的问题讨论	8	6	54	38	掺杂石英玻璃管脉冲氙灯及滤光套管在激光器中的应用	8	8	56	39
干涉型计算机产生的全息图检验非球面镜	8	6	54	42	光学薄膜的损耗	8	8	56	45
三能级激光系统中的非平衡定态问题	8	7	55	1	脉冲染料激光腔的频率特性	8	9	57	1
非稳定共振腔的波型限制特性	8	7	55	4	NH ₂ D 斯塔克效应调制 CO ₂ 激光器	8	9	57	7
					室温 TEACO 激光器	8	9	57	11
					GaAs-Ga _{1-x} Al _x As _{1-y} P _y 异质结晶格匹配研究	8	9	57	14
					深扩 Zn 平面条形激光器的横模稳定性	8	9	57	21
					半导体激光器阈值条件与横				

	卷	期	总期	页
模的关系	8	9	57	26
闪烁体 PPO-POPOP 多元溶液体系	8	9	57	30
光学陀螺仪的基本精度极限	8	9	57	34
相位复共轭波和它的可能应用	8	9	57	42
微波干涉仪测量气体放电管电子密度	8	9	57	48
高效激光染料 DCM 的调谐特性	8	10	58	1
取代氨基香豆素的合成、光谱和激光性能	8	10	58	4
一种利用象散改进的白光重现全息术	8	10	58	8
He-Ne 激光器放电噪声的实验研究	8	10	58	13
长寿命 $Al_xGa_{1-x}As-GaAs$ 双异质结激光器	8	10	58	16
强红外激光场中 BCl_3 分子的同位素选择性离解	8	10	58	20
离子交换平板玻璃光波导	8	10	58	24
脉冲染料激光强迫振荡器的调频研究	8	10	58	26
用脉冲全息干涉法检测内部缺陷	8	10	58	30
利用光栅对字符进行相加和相减	8	10	58	33
上海激光大气闪烁的空间相关	8	10	58	37
中国科学院举办激光器与光谱仪器展览会	8	10	58	44
反激光的理论分析	8	11	59	1
高亮度电子束及其作用	8	11	59	8
$CO_2-N_2-H_2O$ 激光体系的振动弛豫过程	8	11	59	11
玻璃中光感生双折射效应的研究	8	11	59	18
缓冲气体流动的 Cu/CuCl 蒸气激光器	8	11	59	22
绿-红波段氙灯泵浦染料激光器	8	11	59	26
Ag_3AsS_3 单晶中 10.6 微米				

	卷	期	总期	页
讯号的上转换	8	11	59	30
快速放电气体激光器用的 Blumlien 电路制备新工艺	8	11	59	34
声光锁模器件的最佳电学匹配	8	11	59	37
波导激光器波导管精度的分析和测量	8	11	59	43
0.5 米精度激光测距仪	8	11	59	46
欧姆接触最佳合金条件	8	11	59	49
红宝石激光周边虹膜切除术	8	11	59	52
光束通过硬边光阑的内禀能量和衍射发散度	8	12	60	1
输出 0.42 焦耳的紫外光预电离 KrF 准分子激光器	8	12	60	4
关于单块双 $45^\circ LN$ 电光 Q 开关消光比的讨论	8	12	60	8
以脉冲氙离子激光器为泵浦和注入光源的注入锁定染料激光器	8	12	60	14
激光在光纤直径测量与控制中的应用	8	12	60	17
在计算全息非球面中全息图的误差分析和误差测量	8	12	60	22
一种校正三级球差的二元全息投影显示屏幕系统	8	12	60	26
横向泵浦染料激光器腔内元件的研究	8	12	60	31
科学札记				
紫外预电离放电泵浦 ArF 激光器	8	1	49	47
电子束控制放电 XeCl* 准分子激光器的实验研究	8	1	49	48
双光栅调谐窄带染料激光器	8	1	49	49
一种有预电离的氮分子激光器	8	1	49	50
氙离子激光器输出功率的稳定	8	1	49	51
锁模染料激光器及其性能测量	8	1	49	51

	卷	期	总期	页		卷	期	总期	页
非色散腔染料激光器辐射的光谱强度分布实验	8	1	49	53	研究	8	3	51	50
氦-氖激光器长寿命阴极的临界值	8	1	49	53	气体成分及电极材料对封离型 CO ₂ 激光器寿命的影响	8	3	51	51
用双内调焦望远镜校准研磨激光管	8	1	49	54	测定氦-氖激光管中气压和气压比的新方法	8	3	51	53
用四波混频实现频率转换和波前再现	8	1	49	54	用光电流光谱学新技术测量激光光谱线的轮廓和线宽	8	3	51	54
甲醇的红外多光子离解	8	1	49	56	采用半导体热电堆的激光体吸收卡计	8	3	51	55
成象法测量空心玻璃微球壁厚	8	1	49	57	宽量程高功率脉冲激光体吸收卡计	8	3	51	56
喷射现象的全息照相术	8	1	49	59	用全息照相时间平均法显示明代《游鱼喷水洗》的振型	8	3	51	57
激光全息减振平台系统研究	8	1	49	61	GGCY-1 型光纤故障点测试仪	8	3	51	59
超声激光抗癌中草药研究取得进展	8	1	49	63	染料调 Q 激光器的简易电源	8	3	51	62
1.064、1.073、1.061 和 1.052 微米单谱线的 Nd:YAG 脉冲激光输出	8	2	50	47	脉冲金蒸气激光器	8	4	52	45
以空气为气源的 TEA CO ₂ 激光器	8	2	50	49	激光触发火花隙的实验研究	8	4	52	46
GaAs 的择优腐蚀和择优生长	8	2	50	50	钽玻璃棒柱面清洁处理对放大器增益的影响	8	4	52	47
GKZ-A 型石英与钨的高温扩散封接	8	2	50	52	用干涉法测量 ZF-7 玻璃非线性折射率 n_2	8	4	52	48
图象的光学微分处理	8	2	50	54	衍射成象在光束波面曲率测量中的应用	8	4	52	50
一种精确的光学复位装置	8	2	50	55	CO ₂ 激光光声光谱仪的研制	8	4	52	52
新式反馈控制气体激光稳流电源	8	2	50	56	空气支柱减振全息摄影工作台	8	4	52	54
圆形镜激光介稳共振腔的衍射理论结果	8	3	51	41	采用整流型恒压变压器的 He-Ne 激光稳流电源	8	4	52	56
大气压行波激励 N ₂ 激光器	8	3	51	42	用刀口扫描法快速测定高斯光束的斑点尺寸	8	4	52	58
氮分子中 3577 埃强激光的实验研究	8	3	51	44	激光扫描器的精度分析	8	4	52	59
采用一种新型声光调制器锁模的氩离子激光器	8	3	51	45	“光学-80”国际讨论会评介	8	4	52	60
TEACO ₂ 腔内棱镜调谐激光器	8	3	51	47	受激布里渊后向散射波的位相复共轭特性	8	5	53	41
CO 电激励气动激光器的初步实验研究	8	3	51	47	基于受激电子喇曼散射效应的红外可调谐激光系统的研究	8	5	53	42
空心阴极限制性放电的氦-氖激光器	8	3	51	49	脉冲氩离子激光器泵浦的可调谐染料激光器	8	5	53	45
ArF 准分子激光器的调频					连续和脉冲共同泵浦的				

	卷	期	总期	页		卷	期	总期	页
Nd ³⁺ :YAG 激光器	8	5	53	48	高功率长寿命氦-镉激光器	8	8	56	54
双束型电子束控制 CO ₂ 激光器	8	5	53	49	横向激发 CO ₂ 波导激光器	8	8	56	55
金属玻璃结构全密封的 He-Ne 激光管	8	5	53	51	用列陈成象方法测量激光束的远场	8	8	56	56
采用复合技术提高 Nd:YAG 激光器的效率	8	5	53	52	双腔 He-Ne 激光器	8	9	57	52
用 Blumlein 电路产生亚毫微秒紫外光脉冲系列	8	5	53	54	在 Na-Ne 放电管中的光电流光谱学实验	8	9	57	53
激光控制光电子开关产生的电脉冲激励半导体激光器产生超短光脉冲	8	5	53	55	CO ₂ 激光辐照三氯化硼-溴丙烷体系	8	9	57	54
刚体沿其表面法线方向的平移所引起的激光斑纹运动	8	5	53	56	波面相干度与可聚焦功率的关系	8	9	57	57
的观察	8	5	53	56	水稻激光诱变效应的初步探讨	8	9	57	59
单块双 45°LN 低温补偿器	8	5	53	60	高灵敏度 LCA 激光能量计	8	9	57	61
在 CO ₂ 激光发射波长内某些红外窗口材料吸收系数的光声测量	8	5	53	60	调 Q 延时与氙灯预燃触发自动化	8	10	58	49
红宝石激光在反射式弹道高速摄影中的应用	8	5	53	62	测定 CO ₂ 激光器偏振特性的简易方法	8	10	58	51
不稳定腔主模的形成过程	8	6	54	47	多普勒光雷达用的 CO ₂ 激光器的频率稳定	8	10	58	53
与 0.53 微米光脉冲高精度同步的 0.6328 微米短脉冲的产生	8	6	54	49	亚毫微秒 GaAlAs 双异质结激光器	8	10	58	55
SF ₆ 饱和吸收窄共振的实验观察	8	6	54	50	双束型电子束-CO ₂ 激光器及调谐选支研究	8	10	58	56
掺钕磷酸盐玻璃激光效率的研究	8	6	54	52	磷酸二氧铯 (CD* Λ) 晶体的倍频效应	8	10	58	57
拍摄光束的液晶相机的研制	8	6	54	54	氦-氙 0.633 毫微米氙饱和吸收稳频激光器	8	10	58	58
利用焦体的特性检测光学元件	8	6	54	55	内腔式 He-Ne 激光管的一种调腔装置	8	10	58	59
脉冲光源光谱分布的测量	8	6	54	56	激光育种对粒重的影响	8	10	58	60
微波谐振腔测量气体激光器电子密度	8	6	54	58	测定石英管内外径比的新方法	8	10	58	61
He-Se 激光器用自动联锁控制电源	8	6	54	61	硅酸盐激光钕玻璃得到广泛应用	8	10	58	64
掺有某些半导体化合物玻璃的非线性吸收效应	8	7	55	53	并联式横向激励大气压氮分子激光器	8	11	59	54
N ₂ 激光器的紫外光预电离	8	7	55	56	Nd ³⁺ :YAG 脉冲激光器输出能量的似饱和现象	8	11	59	56
用重铬酸盐明胶制作白光再现全息图	8	7	55	58	DH-GaAlAs/GaAs 激光二极管的一种可靠实用的键合方法	8	11	59	58

卷	期	总期	页
8	11	59	59
8	12	60	36
8	12	60	37
8	12	60	38
8	12	60	40

问题讨论

关于气体激光管着火电压降低机理的几个问题	8	12	60	44
----------------------	---	----	----	----

激光医学

CO ₂ 激光治疗皮肤恶性肿瘤	8	2	50	58
CO ₂ 激光散焦照射治疗慢性喉炎 38 例	8	2	50	58
CO ₂ 激光治疗肢端疼痛症	8	2	50	59
CO ₂ 激光照射对毛发生长的刺激作用	8	2	50	59
激光治疗顽固性肛周瘙痒	8	2	50	60
激光工作者的染色体分析	8	2	50	60
激光工作者皮肤体检观察	8	2	50	61
激光气化治疗排污装置	8	2	50	62
氦-氖激光对正常母黄牛血液及发情的影响	8	2	50	63
CO ₂ 激光治疗鼻内疾患 276 例	8	7	55	60
CO ₂ 激光治疗喉癌和喉乳头瘤	8	7	55	60
He-Ne 激光照射治疗 538 例耳鼻咽喉疾患	8	7	55	61
He-Ne 激光治疗白内障一例	8	7	55	61
He-Ne 激光治疗 105 例阿弗它口腔炎	8	7	55	62
He-Ne 激光治愈麦粒肿 120 例	8	7	55	62

卷	期	总期	页
8	7	55	63
8	7	55	63
8	7	55	64
8	7	55	64
8	8	56	59
8	8	56	59
8	8	56	60
8	8	56	60
8	8	56	62
8	8	56	62
8	8	56	63
8	8	56	64
8	11	59	60
8	11	59	60
8	11	59	61
8	11	59	62
8	11	59	62

简讯

《激光》杂志征稿简则	8	1	49	64
全息图象数据处理机研制成功	8	2	50	20
激光新材料研究动向	8	2	50	26

	卷	期	总期	页		卷	期	总期	页
江苏省第一届激光医学交流会 会在徐州召开	8	2	50	32	术报告会征文通知	8	7	55	14
JGT-79 型 YAG 激光调阻 实用样机通过技术鉴定	8	2	50	42	多功能 YAG 激光器	8	7	55	20
首届“全国光学/激光边缘学 科讨论会”在无锡召开	8	2	50	46	江西省激光学会成立	8	8	56	11
中国科学院召开“六路钹玻 璃激光等离子体物理实验 装置”鉴定会	8	2	50	64	第五届国际激光和光电子学 会议	8	8	56	30
光学爱好者的愿望——《光 的世界》创刊	8	2	50	封四	第一届激光工程应用学术交 流会将在成都召开	8	8	56	38
超小型固体激光器研制成功	8	4	52	8	江苏省激光学会第二届年会 在苏州召开	8	8	56	44
1.32 μ 钕铝石榴石连续激光 器	8	4	52	8	寿命超过 6000 小时的室温 CO 选支激光器	8	8	56	64
陕西省召开激光红外技术交 流会	8	4	52	8	脉冲氩、硫和氧激光	8	8	56	65
上海市激光学会成立“技术 服务处”	8	4	52	32	激光光学演示仪研制成功	8	8	56	65
用 193 毫微米 ArF 准分子 激光对 HgBr ₂ 进行单光 子和双光子解离的研究	8	4	52	62	“光电技术在电力工业中应 用学术讨论会”在山东泰 安召开	8	9	57	13
激光裂解等离子体计量分析术 在油田勘探中的应用	8	4	52	63	涡轮喷气 CO ₂ 气动激光器设 想	8	9	57	62
上海光机所召开第四届科学 报告会	8	5	53	27	半导体激光器的外色散腔选 模和调谐	8	9	57	63
华北光电研究所 1980 年激 光晶体研究进展	8	5	53	64	银微粒相位全息图和高稳定 性减振台推广应用学习班	8	11	59	7
江苏省激光研究所研制成 500 瓦封离型 CO ₂ 激光器	8	6	54	17	激光若干基本问题(概念)学 术讨论会在黄山召开	8	11	59	17
大功率 CO ₂ 激光治疗仪通过 技术鉴定	8	6	54	17	激光器不稳定工作的一点分 析	8	11	59	42
新型激光防护眼镜	8	6	54	63	用针孔扫描方法测定 He-Ne (I) 激光束的发散角	8	11	59	63
CO ₂ 饱和和吸收的荧光探测	8	6	54	64	低速瞬时转动马达调 Q 激 光测距	8	11	59	64
小型钛泵在制作 He-Se 激光 管真空系统中的应用	8	6	54	64	砷化镓双异质结激光器寿命 达万小时	8	12	60	7
四频环形激光陀螺原理样机 通过技术鉴定	8	7	55	3	激光镗床	8	12	60	43
1982 年第六届全国激光学					He 的 5875.6 Å 激光辐射	8	12	60	45
					九条新紫外脉冲激光谱线	8	12	60	46
					基础光学将持续稳定发展	8	12	60	46
					《激光》杂志 1981 年(总 49 ~60 期)总目录	8	12	60	47

Annual Cumulative Contents of Volume 8, Laser Journal (1981)

	Vol.	No.	Cum No.	Page
The gradient vector potential of electromagnetic field and the Bohm quantum potential	8	1	49	1
Influence of thermal deformation in mirrors on resonator parameters	8	1	49	5
Folded resonator for high power lasers	8	1	49	10
Cavity dumped dye laser	8	1	49	14
A copper vapor laser	8	1	49	18
Second order CARS of benzene	8	1	49	21
Relation between thermal lens effect and rod-axis orientations in Nd:YAG	8	1	49	23
Formation of grating corrugations in GaAs (100) planes	8	1	49	27
Study of relief-characteristics of holographic emulsion due to bleaching effect and the preparation of phase filters	8	1	49	30
Investigation of optical absorption of window material germanium by photo-acoustic spectroscopy	8	1	49	33
Observation of some characteristics of actively mode-locked Ar ⁺ lasers using scanning interferometer	8	1	49	35
Holographic storage for documents	8	1	49	39
The 11th International Quantum Electronics Conference	8	1	49	42
Theory of Q-switched pulse train laser	8	2	50	1
Properties of steady discharge in Ar-Kr-F ₂ gas mixture	8	2	50	5
Laser cooling of gas atoms by optical frequency shifts	8	2	50	10
An acousto-optic actively mode-locked argon ion laser	8	2	50	13
A UV-preionized ArF and KrF excimer laser	8	2	50	17
Thermo-optic properties of anisotropic laser crystals	8	2	50	21
Moire transformation and phase measurement (I)	8	2	50	27
Calibration of absolute sensitivity of phototubes	8	2	50	33
Laser speckle diffraction and measurement of speckle intensity	8	2	50	36
Color center lasers and their potential applications	8	2	50	43
An actively acousto-optic mode-locked pulsed Nd:YAG laser	8	3	51	1
A passively mode-locked Nd:YAP laser	8	3	51	4
Study on infrared spectrum of neodymium lithium tetraphosphate crystals	8	3	51	7
Investigation of the effects of various rare-earth ions on the performances of Nd ³⁺ -doped inorganic liquid laser systems	8	3	51	10
A hollow cathode CW silver ion laser at 4788 Å	8	3	51	14
A He-Cd laser in a nonuniform magnetic field	8	3	51	17
The computer hologram and modification of the phase error generated in making Lohmann holograms	8	3	51	19
Optical microdiagnosis of laser plasma	8	3	51	23

	Vol.	No.	Cum. No.	Page
Study on the technical parameters of laser transformation hardening	8	3	51	26
Studies on irradiation products of laser boron isotope separation by infrared absorption spectroscopy	8	3	51	32
Study of anaesthetization by laser	8	3	51	35
Electrophoretic analysis of isozymes in rice sprouts by He-Ne laser irradiation	8	3	51	39
A theoretical analysis on Langmuir flow effects in the ring laser	8	4	52	1
Analytical description of temporal characteristics for powerful laser pulses	8	4	52	9
Criteria and discussion on ionization instability in e -beam controlled discharge KrF* laser	8	4	52	14
A pulsed xenon ion laser	8	4	52	18
Self-induced polarization change of $1.06\ \mu\text{m}$ laser beam in glasses	8	4	52	22
Experimental study on room temperature LiF crystal F_2 colour center lasers	8	4	52	25
A study on the aromatic abundance in rock sample by laser-pyrolysis gas chromatography	8	4	52	28
The formation of boron fluoro-chloride in the separation of boron isotopes by multiphoton absorption of BCl_3	8	4	52	33
Coherent anti-Stokes Raman spectroscopy (CARS)	8	4	52	38
A continuously tunable UV laser in $2800\ \text{\AA}$ to $4100\ \text{\AA}$	8	5	53	1
Active and active-passive mode-locked pulsed lasers	8	5	53	5
Three-photon resonance ionization of atomic potassium	8	5	53	10
The electric dipole transition intensity of the Nd^{3+} ions in LNP crystals	8	5	53	12
The picosecond optical gate	8	5	53	15
An electro-optic crystal modulator for mode-locking of laser	8	5	53	19
A half-tone method for laser mode detection	8	5	53	24
Experimental studies on alkali-metal pumping lamps	8	5	53	28
Application of image plane holography to holographic microscope	8	5	53	33
Application of computer-generated holograms to aspheric surface testing	8	5	53	37
The vibrational relaxation processes in $\text{CO}_2\text{-N}_2\text{-H}_2\text{O}$ laser system	8	6	54	1
A simple design and calculation method of the TEM ₀₀ -thermo-insensitive resonator	8	6	54	9
Transmission properties of off-axis spherical waves and two dimensional stability of unstable cavity modes	8	6	54	13
A CW $\text{La}_{0.1}\text{Nd}_{0.9}\text{P}_5\text{O}_{12}$ laser at 1.051 and $1.32\ \mu\text{m}$	8	6	54	18
Research on infrared transmission of GaAlAs/GaAs DH lasers	8	6	54	23
Effects of chromium ion concentration on the threshold and output energy of dye Q-switched ruby lasers	8	6	54	28
Spatial modulation of laser beam	8	6	54	32

	Vol.	No.	Cum. No.	Page
On the problems of profiling the ocean waves based on the laser phase ranging principle	8	6	54	38
Aspheric mirror inspection by interference type computer generated hologram	8	6	54	42
Non-equilibrium steady state in the three-energy-level laser system	8	7	55	1
Mode restriction characteristics of unstable optical resonators	8	7	55	4
Influence of gas lenslike effect on mode-locking of TEA CO ₂ lasers	8	7	55	7
Magneto-optic isolator for optical fiber transmission	8	7	55	11
Residual stress in Nd:YAG crystals and its annealing	8	7	55	15
Study on early blacking of the internal tube wall of alkali metal vapor lamps	8	7	55	21
Double speckle interferometry	8	7	55	25
Computer-generated holograms	8	7	55	28
A HCN laser and the measurement of the submillimeter waves	8	7	55	32
Several methods for adjusting optical systems in applied optics	8	7	55	35
The defects in melting pool of the pulsed laser welding	8	7	55	38
Application of ruby laser microbeam irradiation to cell biology	8	7	55	43
The atmospheric scintillation in Shanghai and its effects on laser engineering	8	7	55	47
Radiation spectrum of relativistic electrons in a spatially periodic transverse magnetic field	8	8	56	1
A thermally stable parallel-plane resonator	8	8	56	5
Analysis on Q-switching by a shutter Q-switch	8	8	56	12
A 200 Mb/s modulation experiment employing an injection GaAs GaAlAs DH laser	8	8	56	19
Improvement of pumping performance of flashlamps used for dye laser excitation with intense pulse preionization	8	8	56	23
Investigation of drilling with false concentric resonator of changeable energy	8	8	56	26
Study of parameters in pulsed laser welding	8	8	56	31
Pulsed xenon flashlamps and filter envelopes made of quartz tubes and their use in lasers	8	8	56	39
Losses of optical thin films	8	8	56	45
Frequency characteristics of passive cavity for pulsed dye lasers	8	9	57	1
Stark-effect modulation of CO ₂ laser with NH ₂ D	8	9	57	7
A room temperature TEA CO laser	8	9	57	11
Researches on GaAs-Ga _{1-x} Al _x As _{1-y} P _y heterostructure lattice matching	8	9	57	14
Stability of the horizontal transverse mode of planar stripe lasers with deep Zn diffusion	8	9	57	21
Relation between the threshold condition and transverse mode of semiconductor lasers	8	9	57	26
Multicomponent solution of scintillators PPO-POPOP	8	9	57	30

	Vol.	No.	Cum. No.	Page
The fundamental precision limit of optical gyros	8	9	57	34
Phase conjugate optics and its potential applications	8	9	57	42
Measurement of electron density of a gas discharge tube with micro-wave interferometer	8	9	57	48
Tunable properties of a new efficient laser dye DCM	8	10	58	1
Thynthesis of substituted 7-amino coumarins and their spectral and lasing behaviour	8	10	58	4
White-light reconstruction holography improved with astigmatism	8	10	58	8
Experimental investigation on the discharge noise for He-Ne lasers	8	10	58	13
Long lifetime Al _x Ga _{1-x} As-GaAs DH lasers	8	10	58	16
Isotopically selective dissociation of BCl ₃ molecules in a strong infrared laser field	8	10	58	20
Ion-exchanged glass plane optical waveguide	8	10	58	24
Study of tuning of a pulsed dye laser forced oscillator	8	10	58	26
Inspection of internal flaws of tire with laser holographic interferometry	8	10	58	30
Optical addition and subtraction of characters by grating	8	10	58	33
The space correlation of atmospheric scintillation of the laser beam in Shanghai	8	10	58	37
Exhibition of laser and spectroscopic instruments sponsored by the Chinese Academy of Sciences	8	10	58	44
Theoretical analysis on backward-reflected laser light	8	11	59	1
High brightness electron beam source and its effects	8	11	59	8
Vibrational relaxation processes in the CO ₂ -N ₂ -H ₂ O laser system	8	11	59	11
Investigation of laser beam induced birefringence effect in glasses	8	11	59	18
Cu/CuCl vapor lasers with flowing buffer gas	8	11	59	22
A flashlamp-pumped dye laser in green-red range	8	11	59	26
Parametric up-conversion of 10.6 μm radiation in the proustite	8	11	59	30
A novel method for manufacturing Blumlein circuit in fast discharge gas laser	8	11	59	34
Optimum electrical match of an acousto-optic mode-locker	8	11	59	37
Analyses and measurement of waveguide tube precision of the waveguide lasers	8	11	59	43
A laser range-finder with a ranging accuracy of ±0.5 m	8	11	59	46
Optimum alloying condition in ohmic contact	8	11	59	49
Peripheral iridectomy by ruby laser	8	11	59	52
The intrinsic energy and diffraction divergence of a light beam after passing through a sharp edge diaphragm	8	12	60	1
A UV-preionized KrF excimer laser with an output energy of 0.42 J	8	12	60	4
Discussion on the extinction ratio of double 45° single block LN electro-optic Q-switches	8	12	60	8
Injection-locked dye laser pumped and injected by a pulsed xenon-ion	8	12	60	14

	Vol.	No.	Cum. No.	Page
laser				
Application of laser to the measurement and control of optical fiber diameter	8	12	60	17
Error analysis and error measurement of computer generated holograms in the test of aspheric surfaces	8	12	60	22
A two-element holographic projection display screen for correction of the third-order spherical aberration	8	12	60	26
Researches on intracavity elements of transversely pumped dye lasers	8	12	60	31

SCIENCE NOTES

	Vol.	No.	Cum. No.	Page
UV-preionization discharge-pumped ArF laser	8	1	49	47
Experimental study of E-beam controlled discharge XeCl* excimer laser	8	1	49	48
Narrow band dye laser tuned with two gratings	8	1	49	49
A nitrogen laser with preionization excitation	8	1	49	50
The stabilization of the output power of an argon ion laser	8	1	49	51
A passively modelocked dye laser and measurement of some of its properties	8	1	49	51
Experiments on spectral intensity distribution of a dye laser with non-dispersion cavity	8	1	49	53
Critical values of long lifetime cathode for He-Ne lasers	8	1	49	53
Calibration for laser tube grinding with two intra-focusing telescopes	8	1	49	54
Frequency conversion and wave-front reconstruction by four-wave mixing	8	1	49	54
Infrared multi-photon ionization of methyl-alcohol	8	1	49	56
Measurement of wall-thickness of glass micro-balloons by imaging method	8	1	49	57
Holography for spraying phenomena	8	1	49	59
Investigation on damping platform for laser holography	8	1	49	61
Experimental progress in ultrasound-laser treatment of anti-cancer chinese medical herbs	8	1	49	63
Pulsed Nd:YAG output of single spectral lines at 1.064, 1.073, 1.061 and 1.052 μm	8	2	50	47
A TEA CO ₂ laser with air as gas source	8	2	50	49
Selective corrosion and selective growth of GaAs crystals	8	2	50	50
Hermetic diffusion sealing of GKZ-A quartz and tungsten at high temperatures	8	2	50	52
Optical differential processing of images	8	2	50	54
An instrument for exact optical reposition	8	2	50	55
A new type feedback-controlled current-stabilized power supply for gas lasers	8	2	50	56
On Concentric and semi-concentric resonators with circular mirrors				

	Vol.	No.	Cum. No.	Page
(diffraction theory)	8	3	51	41
A travelling-wave excited atmospheric N ₂ laser	8	3	51	42
Experimental study on intense nitrogen laser output at 3577 Å	8	3	51	44
A mode-locked Ar ⁺ laser using new type acousto-optic modulator	8	3	51	45
A tunable TEA CO ₂ laser with intracavity prisms	8	3	51	47
Preliminary experimental research on an electrically excited gasdynamic CO laser	8	3	51	47
A He-Ne laser with hollow cathode and limited discharge	8	3	51	49
Spectral tuning of ArF excimer laser	8	3	51	50
Effects of gas constitution and electrode material on life-time of sealed-off CO ₂ lasers	8	3	51	51
A new method for determining the gas pressure and the gas partial pressure ratio in He-Ne lasers	8	3	51	53
The application of optogalvanic spectroscopy to the measurement of laser line profile and width	8	3	51	54
A bulk-absorption laser calorimeter using semiconductor thermopiles	8	3	51	55
A bulk-absorption calorimeter with large measurement range for ps pulsed laser light	8	3	51	56
Illustrating the vibrating state in a Ming-Dynasty bronze antique "Fish-Washer" by time averaged holography	8	3	51	57
An GGCY-1 apparatus for measuring faults of optical fibers	8	3	51	59
A simple power supply for dye Q-switched lasers	8	3	51	62
A pulsed gold vapour laser	8	4	51	45
Experimental research on laser triggered spark gaps	8	4	52	46
Effects of cleaning treatment of cylindrical surfaces of Nd-glass rods on the gain of laser amplifiers	8	4	52	47
Interferometric measurement of nonlinear refractive index of ZF-7 glass	8	4	52	48
Application of diffraction imaging in measuring the wavefront curvature of the laser beam	8	4	52	50
An opto-acoustic CO ₂ spectrometer	8	4	52	52
Holographic bench with air-supported absorber	8	4	52	54
A current-stabilized power supply for He-Ne lasers using rectifier type constant voltage transformer	8	4	52	56
Fast measurement of spot size of a Gaussian laser beam by scanning knife edge	8	4	52	58
Precision analysis of the laser scanner	8	4	52	59
"Optics 80" held in Hungary	8	4	52	60
Phase conjugation characteristics of backward stimulated Brillouin scattering waves	8	5	53	41
Research on the tunable infrared laser system based on stimulated electronic Raman scattering effect	8	5	53	42

	Vol.	No.	Cum. No.	Page
Tunable dye laser pumped by a pulsed xenon ion laser	8	5	53	45
Simultaneous pumping of Nd ³⁺ :YAG laser by CW and pulsed light	8	5	53	48
A dual electron-beam controlled CO ₂ laser	8	5	53	49
A He-Ne laser tube totally sealed-off with metal glass	8	5	53	51
Raising the efficiency of Nd:YAG lasers using composite technology	8	5	53	52
Generation of UV nanosecond light pulse trains by using Blumlein circuit	8	5	53	54
Ultra-short light pulses from a semiconductor laser excited by electrical pulses formed by a laser pulse controlled opto-electronics switch	8	5	53	55
Observation of speckle shift induced by rigid-body longitudinal movements	8	5	53	56
Single-block double 45° LN low temperature compensator	8	5	53	60
Photo-acoustic measurement of the absorption coefficients for some IR window materials at CO ₂ laser wavelengths	8	5	53	60
Application of pulsed ruby laser to front light high speed ballistic photographic system	8	5	53	62
Formation of fundamental mode in an unstable resonator	8	6	54	47
Generation of short pulses at 0.6328 μm synchronized with high precision to the pulses at 0.53 μm	8	6	54	49
Experimental observations of narrow resonant saturated absorption by SF ₆	8	6	54	50
Study on lasing efficiency of Nd-doped phosphate glasses	8	6	54	52
Development of the liquid crystal camera for infrared photography	8	6	54	54
Test of optical elements using focal volume properties	8	6	54	55
Measurement of the spectral distribution of pulsed light sources	8	6	54	56
Electron density in gas lasers measured with microwave cavity	8	6	54	58
A power supply with automatic locking control for He-Ne lasers	8	6	54	61
Nonlinear optical absorption effects in glasses doped with some semiconductor compounds	8	7	55	53
UV preionization in molecular N ₂ laser	8	7	55	56
Fabrication of white light reconstructed holograms using dichromated gelatin	8	7	55	58
A high power and long life time He-Cd laser	8	8	56	54
A transversely excited CO ₂ waveguide laser	8	8	56	55
Measurement of far field laser beam with array imaging	8	8	56	56
A dual cavity He-Ne laser	8	9	57	52
Optogalvanic spectroscopic experiments in a Na-Ne discharge tube	8	9	57	53
The system of boron trichloride and 1-bromopropane under CO ₂ laser irradiation	8	9	57	54
Dependence of wavefront coherence on the focusable power	8	9	57	57
A preliminary investigation of laser induced effects on rice	8	9	57	59

	Vol.	No.	Cum. No.	Page
A LCA laser calorimeter of high sensibility	8	9	57	61
Automation for time delaying of Q-switching and ignition of simmering xenon-lamps	8	10	58	49
A simple method for determining polarized performance of CO ₂ lasers	8	10	58	51
Frequency stabilization of the CO ₂ laser used in Doppler lidars	8	10	58	53
A sub-nanosecond GaAlAs double heterojunction laser	8	10	58	55
A double electron beam-controlled CO ₂ laser and its frequency selection	8	10	58	56
Frequency doubling with CD* A crystal	8	10	58	57
Frequency stabilized He-Ne laser (0.33 μm) of neon saturated absorption	8	10	58	58
Alignment of an intracavity He-Ne laser	8	10	58	59
Effect of laser breeding on seed weight	8	10	58	60
Determination of the inside and outside diameter ratio of quartz tubes by forwardscattering light field	8	10	58	61
Wide applications of Nd doped silicate	8	10	58	64
A transversely excited atmospheric N ₂ laser in parallel	8	11	59	54
Quasi-saturation phenomenon of output energy of Nd ³⁺ :YAG pulsed lasers	8	11	59	56
A reliable and practical technique for bonding DH-GaAlAs/GaAs laser diodes	8	11	59	58
A method for measuring small spot size of laser beam	8	11	59	59
A hybrid CO ₂ laser	8	12	60	36
Simple stabilization of CO ₂ laser frequency	8	12	60	37
Influence of the nonradiative combination velocity in the proton bombarded region on the spatial distribution of the injection carriers in the active layer	8	12	60	38
A new principle for TE waveguide CO ₂ laser tuning by pressure	8	12	60	40

DISCUSSION

	Vol.	No.	Cum. No.	Page
On some problems of the mechanism of lowering breakdown voltage in gas laser tubes	8	12	60	44

LASER IN MEDICINE

	Vol.	No.	Cum. No.	Page
CO ₂ laser treatment of malignant tumour of the skin	8	2	50	58
Treatment of 38 cases of chronic laryngitis by defocused CO ₂ laser light	8	2	50	58
CO ₂ laser treatment of toes pains	8	2	50	59

	Vol.	No.	Cum. No.	Page
The stimulant effect on hair growth by CO ₂ laser irradiation	8	2	50	59
Laser therapy of stubborn anus itch	8	2	50	60
Analysis on chromosome of laser researchers	8	2	50	60
Dermatological inspection for laser researchers	8	2	50	61
A pollutant-removing device for laser therapy	8	2	50	62
Effect of He-Ne laser on the blood and oestrus of normal cows	8	2	50	63
276 cases of intranasal lesion treated with CO ₂ laser	8	7	55	60
Throat cancer and papilloma of larynx treated with CO ₂ laser	8	7	55	60
538 cases of otolaryngological deceases cured with He-Ne laser irradiation	8	7	55	61
Cne case of cataract cured with He-Ne laser	8	7	55	61
105 cases of Afta stomatitis cured with He-Ne laser	8	7	55	62
120 cases of sties cured with He-Ne laser	8	7	55	62
Observations of curative effect of 35 cases of neuroses treared by He-Ne laser light	8	7	55	63
Experimental observations of precordial area of rats and cats irradiated with He-Ne laser light	8	7	55	63
General inspection of eyes for laser researchers in Guangzhou area	8	7	55	64
95 cases of mucous gland cyst treated with CO ₂ laser	8	8	56	59
Clinical observation of the correction of abnormal fetal position in 60 cases treated with He-Ne laser direct irradiation of the acupuncture point Zhiyin	8	8	56	59
Effect observation of 30 cases of thrombosed external hemorrhoid by laser light	8	8	56	60
A survey about the law governig the penetration of tissues by He-Ne laser rays	8	8	56	60
Raising incubation rate,shortening growth period and increasing breed rate in chick with laser treatment	8	8	56	62
Laser treatment of military dog tumour and horse limb lameness	8	8	56	62
The analgestic effect of He-Ne laser irradiation	8	8	56	63
A comparision of the analgestic effect of He-Ne laser irradiation in different types of nerves	8	8	56	64
Clinical observation on He-Ne laser treatment of 829 dermatological cases	8	11	59	60
601 cases of viulent harotitis cured with He-Ne laser	8	11	59	60
A bit of experience in CO ₂ laser therapy	8	11	59	61
One case of chronic anal fistula treated with He-Ne laser	8	11	59	62
Observation of sister chromatid exchange in the peripperal blood lymphocytes in 40 cases of laser workers in Guangzhou	8	11	59	62

LETTERS

Call for papers	8	1	49	64
-----------------	---	---	----	----

	Vol.	No.	Cum. No.	Page
Data processor for holographic image developed	8	2	50	20
Trends in the development of new laser materials	8	2	50	26
The first session of laser medical conference of Jiangshu held in Xuzhou	8	2	50	32
Prototype of JGT-79 YAG laser for resistance adjustment	8	2	50	42
1st National Seminar on Frontier Sciencs of Optics/Laser held in Wuxi	8	2	50	46
Appraisal meeting held by Academia Sinica on "Six-beam Nd:glass laser- plasma physics experimental arrangement"	8	2	50	64
The "World of Light" will start publication	8	2	50	Back
A miniature solid state laser successfully developed	8	4	52	8
A CW YAG:Nd ³⁺ laser at 1.22 μ m	8	4	52	8
Interchange meeting on laser and infrared technology held in Shanxi province	8	4	52	8
Technical service formed by Laser Society of Shanghai	8	4	52	32
One and two photon ionization of HgBr ₂ with an excimer ArF laser at 193 nm	8	4	52	62
Application of laser pyrolysis plasma stoichiometrical analysis to oil fields exploration	8	4	52	63
The 4th Science Symposium held in Shanghai Institute of Optics and Fine Mechanics	8	5	53	27
Progress of laser crystals research by North-China Research Institute of Electro-Optics in 1980	8	5	53	64
500 W sealed-off CO ₂ laser developed in Laser Research Institue of Jiangsu	8	6	54	17
Technical appraisal of the high power CO ₂ therapeutical device passed	8	6	54	17
New laser goggles	8	6	54	63
Fluorescence detection of saturated absorption in CO ₂	8	6	54	64
Small titanium pump used in fabricating vacuum system for He-Ne laser tubes	8	6	54	64
Technical appraisal of the prototype of four frequency ring laser gyroscope passed	8	7	55	3
The Sixth National Laser Symposium: Call for paper	8	7	55	14
YAG laser with multifunctions	8	7	55	20
Laser Society of Jiangxi province found	8	8	56	11
The Fifth International Conference on Lasers and Opto-Electronics	8	8	56	30
The First Conference on Laser Engineering and Applications will be held in Chengdu	8	8	56	38
The Second Annual Meeting of Laser Society of Jiangsu province held in Suzhou	8	8	56	44
A branch selected CO laser of more than 6000 hours at room teperature	8	8	56	64
Pulsed Argon, Sulfur and Oxygen laser	8	8	56	65

	Vol.	No.	Cum. No.	Page
Laser demonstrator developed for teaching purpose	8	8	56	65
Symposium on application of opto-electric techniques in power industry held in Taian, Shandong	8	9	57	13
A proposal on the turbojet CO ₂ gas dynamic laser	8	9	57	62
Mode selection and tuning of the dispersive, extra cavity for semiconductor lasers	8	9	57	63
Traiding course for spreading application of silver grain phase holograms and damping tables with high stability	8	11	59	7
Symposium on a number of basic problems (concepts) on laser held in Huangshan mountain	8	11	59	17
Analysis of the unstable operation of laser	8	11	59	42
Measurement of divergence angle of He-Ne laser beam by pinhole scanning	8	11	59	63
Range-finding with a low speed transient rotating mirror Q-switched laser	8	11	59	64
Life time of 10,000 hrs for DH GaAs lasers	8	12	60	7
Application of lathe in laser tube fabrication	8	12	59	43
5875.6 Å laser radiation in He	8	12	60	45
9 new UV pulsed lines	8	12	60	46
Basic optics will experience continued and steady development	8	12	60	46
Annual Cumulative Contents of Volume 8, Laser Journal (1981)	8	12	60	47