

� 综述 ♥

基于晶体拉曼转换的多波长激光技术综述 (特邀)	吕志伟,刘钟泽	 ,陈	晖,等	20230420
面向结构光三维测量的相位展开技术综述 (特邀)	张宗华,李雁玛	令,高	峰,等	20230126
高功率自由空间拉曼放大技术研究进展 (特邀)	白振旭,郝 🗿	鑫,郑	浩,等	20230337
可见光波段全固态涡旋激光腔内产生技术研究进展(特邀)	齐瑶瑶,李珺/	辰,张	雨,等	20230424
高重频大能量 1.6 µm 波段全固态激光的研究进展 (特邀)	李鹏飞,张一	飞,李	凯,等	20230403
偏振态纵向变化矢量光束研究进展 (特邀)	王文悦,李劲村	公,郭纪	祥,等	20230362
AlGaN 基深紫外微型发光二极管的研究进展 (特邀)	刘召强,贾	童,许湘	钰,等	20230390
激光雷达与相机融合标定技术研究进展	王世强,孟召第	言, 高	楠,等	20230427

❖ 激光器与激光光学 ❖

液体 SBS-PCM 中泵浦光重复频率对热对流特性的影响 (特邀)	王.	坤,ì	潭博	文, 陈	义夫,	等	20230415
多波长红光金刚石拉曼激光器	张亚	Z凯,	陈 日	厍,白	振岙,	等	20230329
LD 端面泵浦 Er:Yb:glass/Co:MALO 晶体热效应分析	孙信	宦宁,	王雨	雷, 张	雨,	等	20230349
宽范围无跳模外腔可调谐半导体激光器	盛立	[文,]	葛崇J	粖, 曹	乾涛,	等	20230374

❖ 光电测量 ❖

基于高斯/洛伦兹线型拟合比的谐波检测压强反演研究 (特邀)	高	楠,	于永波	,杜打	辰辉,	等	20230428
利用抖动算法扩展深度范围的三维形貌测量术	杨静	雯,	张宗华	,付莉	菏娜,	等	20230059
基于相位标靶的相位测量轮廓术投影色差建模与校正	张禹	茁,	贾璐璐	,高	楠,	等	20230385
基于单色条纹投影的高动态范围物体表面形貌三维测量	王张	颕,	张宁宁	,高	楠,	等	20230327
全方位相机与转轴位姿标定方法研究	高宇	森,	高楠	i, 倪ī	う博,	等	20230425
基于银-丝蛋白-银结构的柚子型三芯光纤痕量水传感器	谢永	鹏,	刘 硕	,赵霜	霂晚,	等	20230394

♦ 非线性光学 ♦

介质 FC-770 受激布里渊散射脉冲压缩 Stokes 线宽特性研究 (特邀)	廉玉东,	胡 祺,解璐洋,等 20230402
非线性晶体走离效应下的二倍频效率研究	高锋,	蔡云鹏,白振旭,等 20230254

* 图像处理 *

基于改进 YOLOv5 的红外车辆检测方法	·张学	之志, 之志,	赵红东,	刘伟娜,	等	20230245
基于微流控芯片的牛乳体细胞均匀分布与计数方法研究	·周	围,	王明慧,	安广鑫,	等	20230265

❖太赫兹技术 ❖

� 简讯 �

亚纳秒 Zig-Zag 板条激光器实现 500 Hz 焦耳量级输出 李	凯,	宋长禹,	岳剑峰	,等	20230423
熔融石英中实现高效率的百毫焦受激布里渊散射	彬,	白振旭,	赵桂娟	,等	20230421
液晶几何相位技术实现光场空间结构全维度调控 李君	駗宇,	于丙石,	赵 波	,等	20230396
金刚石布里渊激光器实现 4 倍线宽窄化 金	舵,	白振旭,	范文强	,等	20230295
光场空间结构全维度非线性调控理论及应用	每俊,	于丙石,	姜嘉琪	,等	20230397
非线性光场调控实现 12 倍相位超分辨实时干涉测量 张鑫宇, 吴海俊, Carn	nelo	Rosales-	Guzmán	,等	20230398

编	辑:付 宁	吴 迪	宣	传	部:	刘兴旺	022-58168885
	翟远征	王红琨	广	告	部:	刘燕荣	022-58168884
	刘燕荣	许文颖	发	行	部:	吴 迪	022-58168520
	刘兴旺						

Contents

* Review *

Review of multi-wavelength laser technology based on crystalline Raman conversion (<i>invited</i>)
Lv Zhiwei, Liu Zhongze, Chen Hui, et al. 20230420
Phase unwrapping technology for structured light three-dimensional measurement: A review (invited)
Zhang Zonghua, Li Yanling, Gao Feng, et al. 20230126
Research progress of high-power free-space Raman amplification technology (invited)
Bai Zhenxu, Hao Xin, Zheng Hao, et al. 20230337
Research progress of all-solid-state intra-cavity vortex beam generation in visible laser (invited)
Qi Yaoyao, Li Junchen, Zhang Yu, et al. 20230424
Research progress of high-frequency and high-energy solid state lasers at 1.6 µm (invited)
Li Pengfei, Zhang Fei, Li Kai, et al. 20230403
Research progress of vector optical beam with longitudinally varying polarization (invited)
Wang Wenyue, Li Jinsong, Guo Jixiang, et al. 20230362
Research progress of AlGaN-based DUV µLED (invited) Liu Zhaoqiang, Jia Tong, Xu Xiangyu, et al. 20230390
Advancements in fusion calibration technology of lidar and camera Wang Shiqiang, Meng Zhaozong, Gao Nan, et al. 20230427
★ Lasers & Laser optics ★
Effect of pump light repetition rate on thermal convection characteristics in liquid SBS-PCM (<i>invited</i>)
Wang Kun, Tan Bowen, Chen Yifu, et al. 20230418
Multi-wavelength red diamond Raman laser Zhang Yakai, Chen Hui, Bai Zhenao, et al. 20230329
Thermal effect analysis of LD end-pumped Er:Yb:glass/Co:MALO crystal
Sun Jianing, Wang Yulei, Zhang Yu, et al. 20230345
Wide-range external-cavity tunable semiconductor laser with mode-hopping free
Sheng Liwen, Ge Chonglin, Cao Qiantao, et al. 20230374
* Photoelectric measurement *
Research on harmonic detection pressure inversion based on Gauss/Lorentz line fitting ratio (<i>invited</i>)
Gao Nan, Yu Yongbo, Du Zhenhui, et al. 20230428
Depth range enhancement of three-dimensional profiling measurement technology based on dithering algorithms
······································
Projection chromatic aberration modeling and correction of phase measurement profilometry based on phase target
······································
3D surface shape measurement of high dynamic range object based on monochrome fringe projection
Wang Zhangying, Zhang Ningning, Gao Nan, et al. 20230327
Research on pose calibration method for omnidirectional camera and rotation axis
Gao Yusen, Gao Nan, Ni Yubo, et al. 20230428
, , ,,

* Nonlinear optics *

* Image processing *

An infrared vehicle detection method based on improved YOLOv5 ····· Zhang Xuezhi, Zhao Hongdong, Liu Weina, et al. 20230245 A study on the uniform distribution and counting method of raw cow's milk somatic cells based on microfluidic chip ······ Zhou Wei, Wang Minghui, An Guangxin, et al. 20230265

* Terahertz *

Optimization of terahertz MIMO array radar based on dual strategy differential evo	olution algorithm ·····
	Wei Xudong, Pang Yajun, Lang Liying 20230244

* Optical imaging *

Two-photon fluorescence 3D microscopic imaging of mouse brain based on femtosecond pulses
Zhang Ze, Hou Guozhong, Deng Yanyan, et al. 20230202

* Optical devices *

Study on cavity length adjustment configuration of double optical wedge ···· Zhang Zhenguo, Li Yingyi, Ju Youlun, et al. 20230422

* Newsletter *

500 Hz Joule-level output by sub-nanosecond Zig-Zag slab laser
Generation of high-efficiency hundred-millijoule stimulated Brillouin scattering in fused silica
Chen Bin, Bai Zhenxu, Zhao Guijuan, et al. 20230421
Full control of structured light with liquid-crystal geometric phase Li Chunyu, Yu Bingshi, Zhao Bo, et al. 20230396
Four times linewidth narrowing has been achieved in diamond Brillouin laser
Jin Duo, Bai Zhenxu, Fan Wenqiang, et al. 20230295
Nonlinear control of structured light in all spatial degrees of freedom Wu Haijun, Yu Bingshi, Jiang Jiaqi, et al. 20230397
Twelvefold phase superresolution interferometric measurement in real time via nonlinear light field control
Zhang Xinyu, Wu Haijun, Carmelo Rosales-Guzmán, et al. 20230398