

目 次

❖ 先进激光器技术 ❖

高功率金刚石激光技术研究进展 (特邀)	白振旭, 杨学宗, 陈 晖, 等 20201076
850 nm 高速垂直腔面发射激光器技术研究进展 (特邀)	佟海霞, 佟存柱, 王子焯, 等 20201077
随机激光研究综述 (特邀)	杜文彧, 胡志家, 曹志刚, 等 20201052
LD 泵浦的高重复频率全固态飞秒激光器 (特邀)	郑 立, 汪会波, 田文龙, 等 20201069
光子集成混沌半导体激光器研究进展 (特邀)	柴萌萌, 乔丽君, 张明江, 等 20201066
高功率激光驱动器光束匀滑技术研究 (特邀)	高妍琦, 李福建, 季来林, 等 20201074
极低时间抖动的飞秒激光技术 (特邀)	皮一涵, 王春泽, 宋有建, 等 20201058
用于精密测量的低噪声激光器研究进展 (特邀)	王雅君, 高 丽, 张晓莉, 等 20201073
啁啾脉冲光学参量振荡器及宽谱中红外激光的产生 (特邀)	刘 沛, 衡家兴, 张兆伟 20201051
2 μm 单掺 Ho 固体激光器及 ZnGeP ₂ 晶体应用于中长波输出的研究进展 (特邀)	刘高佑, 魏迪生, 陈 毅, 等 20201056
直接输出的超短脉冲轨道角动量涡旋光产生技术研究进展 (特邀)	汪 莎, 张志成, 邓国亮, 等 20201061
高功率循环流动型半导体泵浦碱金属蒸汽激光器研究进展 (特邀)	季艳慧, 何 洋, 万浩华, 等 20201080
2~4 μm 中红外铋化物半导体激光器研究进展 (特邀)	杨成奥, 张 一, 尚金铭, 等 20201075
激光光谱合成技术研究进展与展望 (特邀)	姜 曼, 马鹏飞, 栗荣涛, 等 20201053
Ho ³⁺ /Pr ³⁺ 共掺氟化铝基玻璃光纤 2.86 μm 激光性能研究 (特邀)	张集权, 刘 墨, 许念念, 等 20201062
2 μm GaSb 基被动锁模激光器重复频率变化的研究 (特邀)	李 翔, 汪 宏, 乔忠良, 等 20201054
蓝光二极管双端抽运 Pr:YLF 晶体 320 nm 紫外激光器 (特邀)	李昕奇, 曲大鹏, 陈 晴, 等 20201070

❖ 激光材料与光电子器件 ❖

稀土掺杂光功能玻璃及器件应用 (特邀)	何冬兵, 胡丽丽, 陈树彬, 等 20201081
表面增强硫系玻璃 Ge ₂₈ Sb ₁₂ Se ₆₀ 薄膜非线性吸收 (特邀)	刘艺超, 周 姚, 赵建行, 等 20201071
Yb, Ho, Pr:GYTO 晶体生长、结构及光谱性能 (特邀) (英文)	何 巽, 窦仁勤, 张昊天, 等 20201067
面向高功率激光隔离器的磁光材料 (特邀)	陈 杰, 周圣明 20201072
飞秒光参量振荡器的光谱净化和稳定性提升 (特邀)	同 晖, 覃治鹏, 谢国强, 等 20201060
掺镱 PCF 的端面处理工艺及激光性能研究 (特邀)	冯素雅, 于春雷, 王 孟, 等 20201065

❖ 激光与物质相互作用 ❖

激光辅助三维金属微打印 (特邀)	林子杰, 徐 剑, 程 亚 20201079
飞秒激光诱导金刚石微纳结构及其应用 (特邀)	王华丰, 孙 轲, 孙盛芝, 等 20201057

矢量光场激发三阶非线性光学效应的研究进展 (特邀)	顾 兵, 胡月球, 闻 博	20201050
二维有机-无机杂化钙钛矿非线性光学研究进展 (特邀)	郑昀颢, 韩 笑, 徐加良	20201063
连续波与脉冲激光器在三重态-三重态湮灭上转换中的应用 (特邀)	曹怀满, 侯玉琦, 赵建章	20201068
利用飞秒激光照射调控氧化石墨烯表面的浸润性能 (特邀)	王飞跃, 邹婷婷, 辛 巍, 等	20201064
基于单模光纤传输的单模-无心-单模光纤型表面等离子体共振传感器 (特邀)	陈郁芝, 李学金	20201055
联三吡啶铂(II)配合物的非线性吸收和光限幅 (特邀)	孙文芳	20201078
非均匀关联光束在湍流中的单模光纤耦合效率 (特邀)	蔺淑琴, 张继前, 朱新蕾, 等	20201049
基于双重共振响应的太赫兹柔性可拉伸超表面 (特邀)	王 晶, 田 浩	20201059
氯代铜卟啉末端功能化的 PMMA 活性自由基聚合材料制备及光学非线性研究 (特邀) ...	徐超越, 马鹏飞, 刘大军	20200398

Contents

❖ Advanced Laser Technology ❖

- Research progress of high-power diamond laser technology (*Invited*) Bai Zhenxu, Yang Xuezhong, Chen Hui, et al. 20201076
- Advances in the technology of 850 nm high-speed vertical cavity surface emitting lasers (*Invited*)
..... Tong Haixia, Tong Cunzhu, Wang Ziyi, et al. 20201077
- Review of random laser research (*Invited*) Du Wenyu, Hu Zhijia, Cao Zhigang, et al. 20201052
- LD-pumped high-repetition-rate all-solid-state femtosecond lasers (*Invited*) ... Zheng Li, Wang Huibo, Tian Wenlong, et al. 20201069
- Progress in photonic integrated chaotic semiconductor laser (*Invited*)
..... Chai Mengmeng, Qiao Lijun, Zhang Mingjiang, et al. 20201066
- Research of beam smoothing technology in high power laser driver (*Invited*) Gao Yanqi, Li Fujian, Ji Lailin, et al. 20201074
- Ultra-low timing jitter femtosecond laser technology (*Invited*) Pi Yihan, Wang Chunze, Song Youjian, et al. 20201058
- Recent development of low noise laser for precision measurement (*Invited*) Wang Yajun, Gao Li, Zhang Xiaoli, et al. 20201073
- Chirped-pulse optical parametric oscillators and the generation of broadband midinfrared laser sources (*Invited*)
..... Liu Pei, Heng Jiaying, Zhang Zhaowei 20201051
- Research progress of 2 μm Ho single-doped solid laser and application of ZnGeP₂ on middle-long-wave infrared (*Invited*)
..... Liu Gaoyou, Wei Disheng, Chen Yi, et al. 20201056
- Research progress on direct generation of ultrashort pulse OAM vortex beams (*Invited*)
..... Wang Sha, Zhang Zhicheng, Deng Guoliang, et al. 20201061
- Research progress on the high power flowing-gas circulation diode-pumped alkali vapor laser (*Invited*)
..... Ji Yanhui, He Yang, Wan Haohua, et al. 20201080
- Research progress of 2-4 μm mid-infrared antimonide semiconductor lasers (*Invited*)
..... Yang Chengao, Zhang Yi, Shang Jinming, et al. 20201075
- Research progress and prospect of spectral beam combining (*Invited*) Jiang Man, Ma Pengfei, Su Rongtao, et al. 20201053
- 2.86 μm lasing in Ho³⁺/Pr³⁺ codoped fluoroaluminate glass fiber (*Invited*) Zhang Jiquan, Liu Mo, Xu Niannian, et al. 20201062
- Repetition frequency variation of a 2 μm GaSb-based passively mode-locked laser (*Invited*)
..... Li Xiang, Wang Hong, Qiao Zhongliang, et al. 20201054
- 320 nm ultraviolet laser in blue laser diode double end pumped Pr:YLF crystal (*Invited*)
..... Li Xinqi, Qu Dapeng, Chen Qing, et al. 20201070

❖ Laser Material & Optoelectronic Devices ❖

- Rare earth ions doped optical functional glass and application (*Invited*) He Dongbing, Hu Lili, Chen Shubin, et al. 20201081
- Surface enhanced nonlinear absorption of chalcogenide Ge₂₈Sb₁₂Se₆₀ film (*Invited*)
..... Liu Yichao, Zhou Yao, Zhao Jianxing, et al. 20201071
- Growth, structure, and spectroscopic properties of Yb,Ho,Pr:GYTO single crystal (*Invited*)
..... He Yi, Dou Renqin, Zhang Haotian, et al. 20201067
- Review of magneto-optic materials for high power laser isolators (*Invited*) Chen Jie, Zhou Shengming 20201072

Spectrum cleaning and stability improvement of femtosecond optical parametric oscillator (*Invited*) Tong Hui, Qin Zhipeng, Xie Guoqiang, et al. 20201060

Study on end treatment process and laser performance of Yb doped PCF (*Invited*) Feng Suya, Yu Chunlei, Wang Meng, et al. 20201065

❖ **Laser-Matter Interaction** ❖

Laser assisted 3D metal microprinting (*Invited*) Lin Zijie, Xu Jian, Cheng Ya 20201079

Femtosecond laser induced microstructures in diamond and applications (*Invited*) Wang Huafeng, Sun Ke, Sun Shenzhi, et al. 20201057

Research progress of third-order nonlinear optical effects excited by vectorial light fields (*Invited*) Gu Bing, Hu Yueqiu, Wen Bo 20201050

Recent progress in nonlinear optics of 2D organic-inorganic hybrid perovskites (*Invited*) Zheng Yunhao, Han Xiao, Xu Jialiang 20201063

Application of continuous wave and pulsed lasers in triplet-triplet annihilation upconversion (*Invited*) Cao Huaiman, Hou Yuqi, Zhao Jianzhang 20201068

Control of the wettability of graphene oxide surface with femtosecond laser irradiation (*Invited*) Wang Feiyue, Zou Tingting, Xin Wei, et al. 20201064

Single mode-no core-single mode fiber based surface plasmon resonance sensor (*Invited*) Chen Yuzhi, Li Xuejin 20201055

Nonlinear absorption and optical limiting of platinum(II) terpyridine complexes (*Invited*) Sun Wenfang 20201078

Coupling efficiency of non-uniformly correlated beams into a single-mode fiber in turbulence (*Invited*) Lin Shuqin, Zhang Jiqian, Zhu Xinlei, et al. 20201049

Terahertz flexible stretchable metasurface based on double resonance response (*Invited*) Wang Jing, Tian Hao 20201059

Preparation and optical nonlinearity of PMMA living radical polymerization materials functionalized with indium chloride porphyrin (*Invited*) Xu Chaoyue, Ma Pengfei, Liu Dajun 20200398