

目 次

□ 红外材料与器件

- 像增强器性能梯次及发展路线研究 刘宇 时荔蕙(427)
基于朗缪尔吸附模型的杜瓦真空寿命评估研究 范崔 王小坤 季鹏 张磊 俞君等(434)
氧气传感 760 nm 垂直腔面发射半导体激光器 刘天娇 徐明辉 张建伟 张星 张卓等(441)
有源区 Be掺杂对 1.3 μm InAs 量子点激光器性能的影响 杜安天 曹春芳 韩实现 王海龙 龚谦(450)
基于 NRZ 调制的 40 Gbit/s 无误码高速 850 nm VCSEL 设计与制备 佟海霞 王延靖 蒋宁 田思聪 佟存柱等(457)
一种新型环形上 DBR 刻蚀微结构 VCSEL 及其空心光束 逢超 晏长岭 杨静航 钱冉 李奕霏(462)
波长拓展型 InGaAsBi 近红外探测器 冯铎 代金梦 曹有祥 张立瑶(468)

□ 太赫兹与毫米波技术

- 基于银/碳纳米颗粒近红外驱动的大调制深度太赫兹调制器 苟晗光 朱宇 邬宗冬 史光华 赖伟恩(476)
带有原位生长 SiN 绝缘层的 AlN/GaN 毫米波高效率 MIS-HEMT 器件
..... 陈晓娟 张一川 张昇 李艳奎 牛洁斌等(483)
高纯度石英玻璃 40~110 GHz 频段电参数的表征 朱香宝 孙旭 岳海昆 钱凌轩 倪磊(490)
基于超短激光脉冲泵浦砷化铝镓多层异质结构的宽带太赫兹辐射产生研究
..... 孙长明 李强爽 杜海伟 吴涛 伏燕军(497)
基于新型多间隙谐振腔的 W 波段高次模式扩展互作用速调管设计 谢冰川 张瑞 王欢欢 王勇 耿志辉等(504)
一种应用于 5G 毫米波通信的双极化有源相控阵模组 朱袁炜 余超 陆容 洪伟(510)

□ 遥感技术与应用

- 星载光学遥感图像特征误匹配剔除方法研究 薛素梅 汤瑜瑜 危峻 黄小仙(519)

□ 红外及光电技术与应用

- 基于聚类思想的红外弱小目标检测 饶俊民 穆靖 刘士建 公劲夫 李范鸣(527)

□ 图像处理及软件仿真

- 基于不规则尺度区域光谱信息的高光谱图像亚像元定位 王鹏 陈永康 张弓 王弘颖 赵春雷等(538)
基于改进随机漫步者非凸秩逼近最小化的复杂背景下红外点目标检测方法研究 王坤 蒋德富 云利军 伍凌帆(546)
基于 sMLD 特征的远红外航空图像配准算法 郭璠 李小虎 朱洪 唐琎(558)



本刊支持开放获取(Open Access)

彩色电子版内容获取

请扫描左侧二维码关注学报公众号

本期责任编辑：周颖圆

CONTENTS

Research of performance grade and development route of image intensifiers	LIU Yu, SHI Li-Hui (427)
A Dewar vacuum lifetime estimate based on Langmuir adsorption model.....	FAN Cui, WANG Xiao-Kun, JI Peng, ZHANG Lei, YU Jun, SHEN Yi-Zhang, MO De-Feng, LI Xue (434)
The 760 nm-vertical cavity surface emitting laser for the oxygen sensing	LIU Tian-Jiao, XU Yue-Hui, ZHANG Jian-Wei, ZHANG Xing, ZHANG Zhuo, GONG Yu-Xiang, ZHOU Yin-Li, MU Jing-Fei, CHEN Chao, WU Hao, NING Yong-Qiang, WANG Li-Jun (441)
Effect of Be doping in active regions on the performance of 1.3 μ m InAs quantum dot lasers	DU An-Tian, CAO Chun-Fang, HAN Shi-Xian, WANG Hai-Long, GONG Qian (450)
Design and fabrication of 40 Gbit/s error-free high-speed 850 nm VCSEL using NRZ modulation	TONG Hai-Xia, WANG Yan-Jing, JIANG Ning, TIAN Si-Cong, TONG Cun-Zhu, WEI Zhi-Peng, WANG Li-Jun (457)
A novel ring-shaped top-DBR etched microstructure VCSEL with a hollow beam	PANG Chao, YAN Chang-Ling, YANG Jing-Hang, QIAN Ran, LI Yi-Fei (462)
Wavelength extended InGaAsBi near infrared photodetector	FENG Duo, DAI Jin-Meng, CAO You-Xiang, ZHANG Li-Yao (468)
NIR-driven large modulation depth terahertz modulator based on silver/carbon nanoparticles	GOU Han-Guang, ZHU Yu, WU Zong-Dong, SHI Guang-Hua, LAI Wei-En (476)
High-efficiency AlN/GaN MIS-HEMTs with SiN_x insulator grown in-situ for millimeter wave applications	CHEN Xiao-Juan, ZHANG Yi-Chuan, ZHANG Shen, LI Yan-Kui, NIU Jie-Bin, HUANG Sen, MA Xiao-Hua, ZHANG Jin-Cheng, WEI Ke (483)
Characterization of electrical parameters of high-purity quartz glass in the 40-110 GHz frequency band	ZHU Xiang-Bao, SUN Xu, YUE Hai-Kun, QIAN Ling-Xuan, NI Lei (490)
Investigation on broadband terahertz generation based on ultrashort laser pumped AlGaAs multilayer heterostructure	SUN Chang-Ming, LI Qiang-Shuang, DU Hai-Wei, WU Tao, FU Yan-Jun (497)
Design of W-band high-order mode extended interaction klystron based on novel multi-gap cavity	XIE Bing-Chuan, ZHANG Rui, WANG Huan-Huan, WANG Yong, GENG Zhi-Hui, LIAO Yun-Feng, YANG Xiu-Dong (504)
A dual-polarized active phased array module for 5G millimeter-wave communications	ZHU Yuan-Wei, YU Chao, LU Rong, HONG Wei (510)
Analysis of eliminating feature mismatch in satellite-borne optical remote sensing images	XUE Su-Mei, TANG Yu-Yu, WEI Jun, HUANG Xiao-Xian (519)
Infrared small target detection based on clustering idea	RAO Jun-Min, MU Jing, LIU Shi-Jian, GONG Jin-Fu, LI Fan-Ming (527)
Sub-pixel mapping based on spectral information of irregular scale areas for hyperspectral images	WANG Peng, CHEN Yong-Kang, ZHANG Gong, WANG Hong-Ying, ZHAO Chun-Lei, HAN Ling (538)
The infrared point target detection algorithm based on modified random walker and non-convex rank approximation minimization under the complex background	WANG Kun, JIANG De-Fu, YUN Li-Jun, WU Ling-Fan (546)
Registration method of far infrared aerial images based on sMLD feature	GUO Fan, LI Xiao-Hu, ZHU Hong, TANG Jin (558)