

目 次

□ 红外物理与材料器件

- 基于线性雪崩器件的高灵敏红外成像探测技术研究 林长青 周双喜 李璐芳 刘高睿 孙海彬 等(1)
基于多目标粒子群优化算法设计的双波段窄带热辐射器 邱千里 章晋国 周东劫 谈冲 孙艳 等(11)
使用新型灰体和TMOS的新型红外热传感器测量发射率的研究(特邀) Moshe Avraham Shlomi Bouscher Jonathan Nemirovsky Yael Nemirovsky(17)
V/III比对分子束外延生长的GaAs基 $InAs_xSb_{1-x}$ 电子迁移率的影响 张静 阳智 郑黎明 朱小娟 王萍 等(25)
HgTe/ZnO量子点垂直堆叠异质结低暗电流光电探测器 黄新宁 姜腾腾 狄云翔 谢茂彬 郭天乐 等(33)
InP基HEMT的整体小凹槽偏移与电学性能的相关性 龚航 周福贵 封瑞泽 冯识谕 刘桐 等(40)
基于有机半导体单晶的可见至近红外光电探测器 李湘 胡金瀚 钟志鹏 陈于中 王志强 等(46)
半浮栅铁电晶体管光子集成器件 尚嘉乐 陈艳 颜浩然 狄云翔 黄新宁 等(52)

□ 毫米波与太赫兹技术

- 基于钙钛矿材料的太赫兹频率可调编码超表面研究 李依凡 杨贺 杨睿 贾一鸣 胡家敏 等(59)

□ 红外光谱与遥感技术

- 面向卫星激光通信用高帧频短波红外图像的高精度光斑质心定位 付鹏 何道刚 刘军 王跃明(66)
一维受限水和体相水中O-H键动力学的红外光谱分析 张磊 王天祺 范彦平(78)

□ 红外光电系统与应用技术

- 组分掺杂对 YbF_3 薄膜材料光学和理化特性的影响及其在红外光学薄膜元件制备中的应用
..... 马秋静 段微波 于天燕 李大琪 余德明 等(86)
晶体温度对飞秒激光诱导铁电畴反转过程的影响研究 徐天翔 王森 林锦阳 赵如薇 徐铁峰 等(97)
基于交叉相关网络的少样本红外空中目标分类方法 黄臻 张湧 公劲夫(103)
宽带高功率三维异构集成微波光子探测器 许向前 龚广宇 孙雷 李宇 康晓晨 等(112)

□ 红外学科交叉融合研究

- 基于红外双目视觉的同步目标检测与匹配网络 曾长紊 杨支羽 代作晓 顾明剑(118)
基于长波红外超材料吸收器的RLC等效电路模型设计及验证 赵继聪 党岩盟 侯海洋 林叶繁 孙海燕 等(129)



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：张旻浩

CONTENTS

- Research on highly sensitive infrared imaging detection technology based on linear avalanche device
..... LIN Chang-Qing, ZHOU Shuang-Xi, LI Lu-Fang, LIU Gao-Rui, SUN Hai-Bin, ZHANG Yu,
..... LIN Jia-Mu, SUN Sheng-Li (1)
- Dual-band narrowband thermal emitter designed based on multi-objective particle swarm optimization algorithm
... QIU Qian-Li, ZHANG Jin-Guo, ZHOU Dong-Jie, TAN Chong, SUN Yan, HAO Jia-Ming, DAI Ning (11)
- Measurement of emissivity with a new grey body and novel IR thermal sensor dubbed TMOS
..... Moshe Avraham, Shlomi Bouscher, Jonathan Nemirovsky, Yael Nemirovsky (17)
- The influence of V/III ratio on electron mobility of the $\text{InAs}_x\text{Sb}_{1-x}$ layers grown on GaAs substrate by molecular beam epitaxy ZHANG Jing, YANG Zhi, ZHENG Li-Ming, ZHU Xiao-Juan, WANG Ping, YANG Lin (25)
- A HgTe/ZnO quantum dots vertically stacked heterojunction low dark current photodetector
..... HUANG Xin-Ning, JIANG Teng-Teng, DI Yun-Xiang, XIE Mao-Bin, GUO Tian-Le, LIU Jing-Jing,
WU Bin-Min, SHI Jing-Mei, QIN Qiang, DENG Gong-Rong, CHEN Yan, LIN Tie, SHEN Hong,
..... MENG Xiang-Jian, WANG Xu-Dong, CHU Jun-Hao, GE Jun, WANG Jian-Lu (33)
- Correlation between the whole small recess offset and electrical performance of InP-based HEMTs
..... GONG Hang, ZHOU Fu-Gui, FENG Rui-Ze, FENG Zhi-Yu, LIU Tong, SHI Jing-Yuan,
..... SU Yong-Bo, JIN Zhi (40)
- Visible to near-infrared photodetector based on organic semiconductor single crystal
..... LI Xiang, HU Jin-Han, ZHONG Zhi-Peng, CHEN Yu-Zhong, WANG Zhi-Qiang, SONG Miao-Miao,
..... WANG Yang, ZHANG Lei, LI Jian-Feng, HUANG Hai (46)
- Semi-floating gate ferroelectric phototransistor optoelectronic integrated devices
..... SHANG Jia-Le, CHEN Yan, YAN Hao-Ran, DI Yun-Xiang, HUANG Xin-Ning, LIN Tie,
..... MENG Xiang-Jian, WANG Xu-Dong, CHU Jun-Hao, WANG Jian-Lu (52)
- Research of terahertz frequency tunable coding metasurface based on perovskite materials
..... LI Yi-Fan, YANG He, YANG Rui, JIA Yi-Ming, HU Jia-Min, LOU Cun-Guang, YU Yu,
..... LIU Xiu-Ling, YAO Jian-Quan (59)
- High-precision spot centroid positioning of high-frame-rate short-wave infrared images for satellite laser communication FU Peng, HE Dao-Gang, LIU Jun, WANG Yue-Ming (66)
- Infrared spectroscopic analysis of O-H bond dynamics in one-dimensional confined water and bulk water
..... ZHANG Lei, WANG Tian-Qi, FAN Yan-Ping (78)
- The effect of doping on the optical and physicochemical properties of YbF_3 and its application in infrared coatings
... MA Qiu-Jing, DUAN Wei-Bo, YU Tian-Yan, LI Da-Qi, YU De-Ming, LIU Bao-Jian, ZHUANG Qiu-Hui,
..... LIU Ding-Quan (86)
- Influence of crystal temperature on femtosecond laser induced ferroelectric domain inversion process
..... XU Tian-Xiang, WANG Sen, LIN Jin-Yang, ZHAO Ru-Wei, XU Tie-Feng, SHENG Yan (97)
- Infrared aircraft few-shot classification method based on cross-correlation network
..... HUANG Zhen, ZHANG Yong, GONG Jin-Fu (103)
- Wideband and high power 3D heterogeneous integration photoreceiver XU Xiang-Qian, GONG Guang-Yu,
..... SUN Lei, LI Yu, KANG Xiao-Chen, LI Si-Min, PAN Shi-Long (112)
- Synchronous object detection and matching network based on infrared binocular vision
..... ZENG Chang-Wen, YANG Zhi-Yu, DAI Zuo-Xiao, GU Ming-Jian (118)
- Design and validation of RLC equivalent circuit model based on long-wave infrared metamaterial absorber
..... ZHAO Ji-Cong, DANG Yan-Meng, HOU Hai-Yang, LIN Ye-Fan, SUN Hai-Yan, ZHANG Kun (129)