

目 次

特约专题:光场调控与微操纵

- 基于扫描光镊技术的多粒子力测量与流变学分析 李姮, 陈小霞, 李泽然, 张垚 (1)
- 基于可配置质量项的拓扑超构表面光场调控 侯佳浩, 梁慧颖, 王子衿, 刘高杰, 王漱明 (8)
- 干燥固体界面上微纳物体全光操控的研究进展 武立毅, 令狐双艺 (20)

测试技术

- 崩塌条件下颗粒重排区域的堆积结构图像测量方法 李岚晟, 李然, 杨晖 (33)

应用技术

- 基于单模光纤分束器的夏克-哈特曼波前传感器校准的方法
..... 刘佩杰, 周文豪, 曾茜, 尚昆, 郭世俊, 周传清 (43)
- AllMix 用于标签噪声学习的图像分类方法 邱烨敏, 张荣福, 何晨, 杨紫叶, 高顾昱 (50)
- $\text{Yb}^{3+}/\text{Er}^{3+}$ 双掺镨基氟化物晶体上转换发光能力的快速实验判别 高杨, 王廷华, 吕强 (58)

设计与研究

- 光学全连接神经网络与光学卷积神经网络的仿真分析 江奔, 张薇, 彭炜烨 (68)
- TiO_2 纳米颗粒担持光波导的制备及其光催化性能 王明浩, 蔡斌 (76)
- ZIF-8 封装 NV 色心金刚石的调控与荧光研究 曾子权, 程梓和, 郭阳阳, 李波 (85)

CONTENTS

SPECIAL COLUMN: LIGHT FIELD MODULATION AND MICROMANIPULATION

- Multi-particle force measurement and rheological analysis based on scanning optical tweezers technology
..... *LI Heng, CHEN Xiaoxia, LI Zeran, ZHANG Yao* (1)
- Light field manipulation in topological metasurfaces based on configurable mass term
..... *HOU Jiahao, LIANG Huiying, WANG Zijin, LIU Gaojie, WANG Shuming* (8)
- Advances in all-optical manipulation of micro/nano objects on dry solid interfaces *WU Liyi, LINGHU Shuangyi* (20)

TESTING TECHNOLOGY

- Image measurement method for packing structure in particle rearrangement areas under avalanche conditions
..... *LI Lansheng, LI Ran, YANG Hui* (33)

APPLICATION TECHNOLOGY

- Experimental study on calibration of Shack-Hartmann wavefront sensors using single mode fiber beam splitter
..... *LIU Peijie, ZHOU Wenhao, ZENG Xi, SHANG Kun, GUO Shijun, ZHOU Chuanqing* (43)
- Image classification approach using AllMix for label noise learning
..... *QIU Yemin, ZHANG Rongfu, HE Chen, YANG Ziyi, GAO Guyu* (50)
- Rapid discrimination of upconversion luminescence ability of Yb³⁺/Er³⁺ co-doped lutetium-based fluoride crystals
..... *GAO Yang, WANG Tinghua, LYU Qiang* (58)

DESIGN AND RESEARCH

- Simulation and analysis of optical fully connected neural networks and optical convolutional neural networks
..... *JIANG Ben, ZHANG Wei, PENG Weiye* (68)
- Preparation and photocatalytic property of TiO₂ nanoparticle-adhered optical waveguide ... *WANG Minghao, CAI Bin* (76)
- Research of regulation and fluorescence properties of ZIF-8 encapsulated NV center diamonds
..... *ZENG Ziquan, CHENG Zihé, GUO Yangyang, LI Bo* (85)