

中文核心期刊
中国科技核心期刊

ISSN 1003-501X
CN 51-1346/O4
CODEN GUGOEC

光电工程



Opto-Electronic Engineering

2022年1月 第49卷 第1期

激光制造技术与新应用专题(一)



中国科学院光电技术研究所

万方数据



中国光学学会

光电工程 (Guangdian Gongcheng)

月刊 1974 年创刊
第 49 卷 第 1 期 (总第 386 期)
2022 年 1 月

主管单位: 中国科学院
主办单位: 中国科学院光电技术研究所
中国光学学会
主 编: 罗先刚
编辑出版: 《光电工程》编辑部
(四川省成都市双流区 350 信箱, 邮编 610209)
电 话: 028-85100579
电子邮箱: oee@ioe.ac.cn
网 址: <http://www.ojournal.org>
印 刷: 四川玖艺呈现印刷有限公司
国内发行: 四川省报刊发行局
(邮发代号: 62-296)
国外发行: 中国国际图书贸易集团有限公司
(发行代号: M7114)
国际标准刊号: ISSN 1003-501X
国内统一刊号: CN 51-1346/O4
出版时间: 每月 25 日

Opto-Electronic Engineering

(Monthly, since 1974)

Volume 49, Issue 1 January 2022

Managed by
Chinese Academy of Sciences
Sponsored by
Institute of Optics and Electronics,
Chinese Academy of Sciences
The Chinese Optical Society
Editor-in-Chief Luo Xiangang
Edited and Published by
Editorial Office of *Opto-Electronic
Engineering*, P. O. Box 350, Shuangliu,
Chengdu 610209, P.R.China
Tel +86-28-85100579
E-mail oee@ioe.ac.cn
Website <http://www.ojournal.org>
Printed by Sichuan Joy Art Printing Co., Ltd.
Domestic Distributed by
Sichuan Provincial Newspaper &
Periodical Subscription and Distribution
Bureau (Code: 62-296)
Overseas Distributed by
China International Book Trading
Corporation (Code: M7114)

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本期封面图片由西安交通
大学杨青提供。

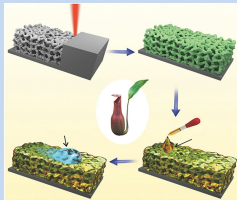


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全国学会期刊出版能力提
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The preparation and applications of bio-inspired slippery surface by femtosecond laser micro-nano manufacturing 210326

Yang Qing, Cheng Yang, Fang Zheng, Zhang Jialiang, Hou Xun, Chen Feng

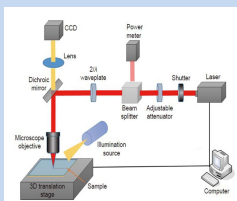
Taking the lyophobicity of slippery surfaces as a background, using femtosecond laser micro/nano-manufacturing technology as a method, the development of slippery surfaces by femtosecond laser was summarized from two perspectives.



Research progress of solar desalination materials produced by laser micro-nano fabrication 210313

Yu Xing, Yan Junsen, Wu Zhipeng, Wu Tingni, Yin Kai

The research progress of laser micro/nano-manufacturing technology in the preparation of seawater desalination materials was summarized from three different aspects, including carbon-based, metal-based and composite materials.

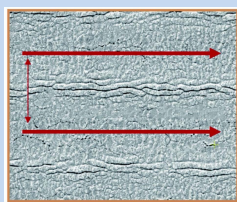


Research progress of laser direct writing fabrication of metal and carbon micro/nano structures and devices 210330

Zhou Weiping, Bai Shi, Xie Zuwu, Liu Mingwei, Hu Anming

The research progress of laser direct writing of metal micro/nano-structures was reviewed, including the preparation of micro/nano-structures and devices using gold, silver, copper and their composite materials.

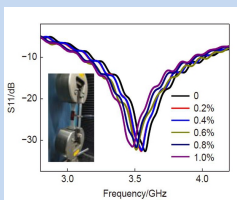
Article



Laser-induced periodic surface structure for microscale anti-counterfeiting structural colors 210320

Ouyang Xu, Xie Zijian, Zhang Mengrui, Yang Qingshuai, Li Chenhui, Cao Yaoyu, Xu Yi, Li Xiangping

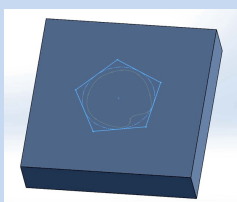
An image encryption method based on laser-induced dual-period grating structures in indium tin oxide thin films was reported, exhibiting different colors under bright-field and dark-field illumination.



Laser direct writing of flexible antenna sensor for strain and humidity sensing 210316

Zhang Jiaqi, Gao Yang, Li Chun, Ju Kuan, Tan Jianping, Ding Yanyan, Xuan Fuzhen

A type of flexible circle antenna sensor was developed by LDW on polyimide film with good dielectric property in response to strain and humidity.



Study on multi-layered CFRP patch bonding joint based on laser 3D engraving technology 210314

Zhu Xiaowei, Pan Zhehao, Yang Wenfeng, Li Shaolong, Cao Yu

A multiladder patch bonding adhesive joint design for CFRP laminates was proposed. The Yin and Yang film of patch bonding joint was designed and constructed. The code generation algorithms for the layered slice laser 3D engraving and scanning process were explored.