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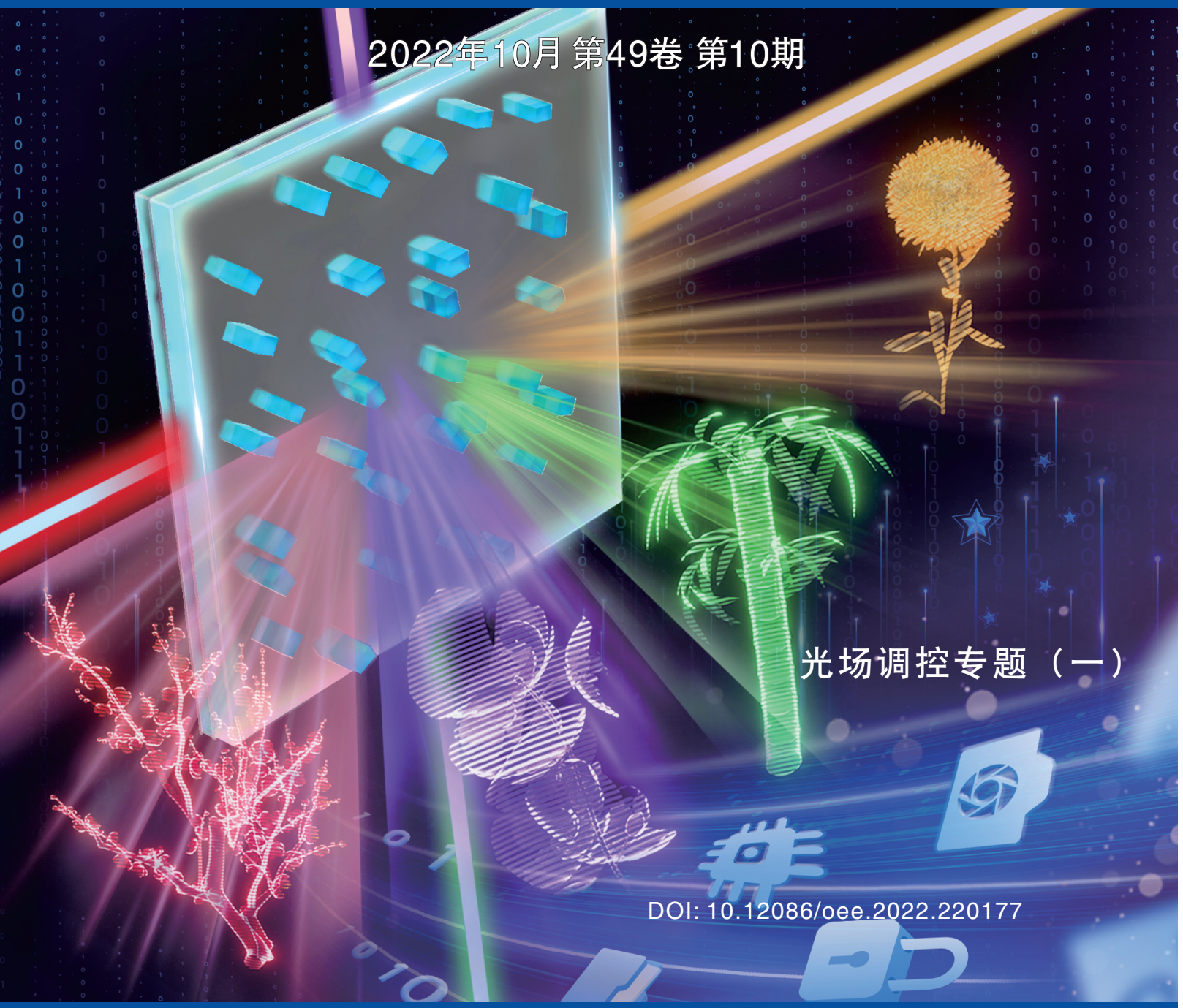

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光场调控专题（一）

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科研论文

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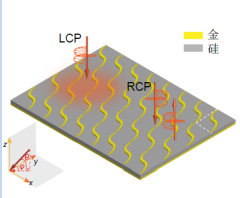
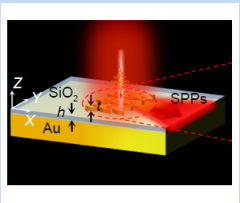


Efficient chiral absorber based on twisted catenary structure

220157

Lan Xiang , Deng Qinrong , Zhang Wenting , Tang Ziyi , Hu Jie , Huang Yijia , Li Ling

A metasurface absorber based on twisted catenary structure that can achieve efficient spin-selective absorption was proposed. The simulated results indicated that the perfect absorption can be achieved for left-handed circularly polarized incidence at the working wavelength, while the absorption for right-handed circularly polarized incidence was below 22%. The corresponding circular dichroism was larger than 78%.

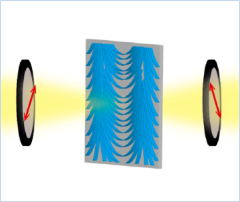


SPPs directional excitation of linearly polarized light based on catenary nanoparticle metasurface

220105

Han Yingying , Chen Panpan , Wang Man , Huang Wanxia , Shi Fenghua , Shi Jianping

A catenary nanoparticle metasurface to realize the SPPs directional excitation with linearly polarized light was designed. The spectral extinction ratio curve and electric field distribution under the incident of *x*-polarized light were calculated with the finite difference time domain.

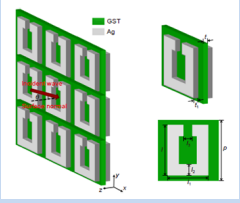


Broadband and high-efficiency edge detection device based on quasi-continuous metasurface

220175

Zhang Haimo , Yang Yang , Liu Kaifeng , Shi Lintong , He Mengyao , Zhang Xiaohu

An optical differential device based on quasi-continuous metasurface was designed and one-dimensional edge detection of an optical image was realized. By changing the spatial orientation of quasi-continuous nanostrips, the device achieved geometric phase in the range of 0~2π, and maintained high energy efficiency over a wide wavelength range.



Design of tunable circular dichroism extrinsic chiral metasurface based on phase change material GST

220092

Shi Zhuolin , He Jinglin , Wang Jinjin , Shao Hanru , Dong Jianfeng

A metasurface with tunable circular dichroism extrinsic chiral based on the phase change material $Ge_2Sb_2Te_5$ (GST) was proposed. It was composed of two symmetrical square silver split ring resonators and a GST intermediate layer arranged periodically.

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