

## Browse Articles

Article Type

Year

All

All

← Previous
1
2
3
...
128
Next →

**Article**  
Open Access  
21 Jan 2026

**TRIXS: a multilayer grating solution towards highly efficient resonant inelastic tender X-ray scattering**  
Multilayer-grating-based spectrometer with high photon flux and moderate energy resolution for tender X-ray

Ke-Jin Zhou, Qiushi Huang ... Zhanshan Wang

**Article**  
Open Access  
21 Jan 2026

**High-efficiency femtosecond laser fabrication of graphene-hybrid planar micro-supercapacitors with micro/nanostructured electrodes**  
Universal femtosecond laser and spatial light modulation enable rapid fabrication of graphene-hybrid micro-supercapacitors on silicon. Simultaneous formation of ordered subwavelength electrode micro/nanostructures boosts processing efficiency and device performance.

Yuyuan Zhang, Tingting Zou ... Yichun Liu

**Article**  
Open Access  
20 Jan 2026

**A near-infrared Sn-Pb perovskite imager with monolithic integration**  
Monolithic Sn-Pb perovskite NIR imager with  $\text{Sn}(\text{SCN})_2$  passivation achieves low dark current, high detectivity and material recognition for advanced sensing and imaging.

Ciyu Ge, Chengjie Deng ... Jiang Tang

**Article**  
Open Access  
20 Jan 2026

**Plan meta-objective for sub-micron quantitative phase imaging**

**Article**  
Open Access  
15 Jan 2026

**A versatile coherent Ising computing platform**  
We conducted an experimental demonstration of coherent Ising machine via femto-second laser pumping that integrates optimization strategies across optical and structural dimensions, resulting in significant performance enhancements.

Hai Wei, Chengjun Ai ... Kai Wen

**Article**  
Open Access  
20 Jan 2026

**mJ-level 7-octave ultraflat white laser encompassing 200–25,000 nm**

Lihong Hong, Renyu Feng ... Zhi-Yuan Li

**Article**  
Open Access  
15 Jan 2026

**Integrated-photonics-based systems for polarization-gradient cooling of trapped ions**  
We design and demonstrate a variety of integrated-photonics-based polarization-gradient-cooling systems, culminating in the first experimental demonstration of trapped-ion polarization-gradient cooling using integrated photonics, facilitating new capabilities for integrated-photonics-based trapped-ion platforms.

Sabrina M. Corsetti, Ashton Hattori ... Jelena Notaros

**Article**  
Open Access  
14 Jan 2026

**Deciphering light transformation in chiral metasurface in real space and time by ultrafast electron microscopy**  
Ultrafast electron microscopy imaging of near-field spatiotemporal evolution unveils the microscopic mechanism of light transformation in chiral metasurfaces.

Ling Tong, Fei Xie ... Xuewen Fu

**Article**  
Open Access  
12 Jan 2026

**Mid-infrared InAs/InP quantum-dot lasers**  
Mid-infrared 2  $\mu\text{m}$  InAs/InP quantum-dot lasers are first demonstrated, with a low threshold current density of 118  $\text{A cm}^{-2}$  per layer and a maximum operating temperature of 50 °C.

Yangqian Wang, Hui Jia ... Huiyun Liu

**Article**  
Open Access  
12 Jan 2026

**Phase-multiplexed interferometry via cavity dynamics for resolution-enhanced coherent ranging**

Yifan Wang, Jinsong Liu ... Yidong Tan

**Article**  
Open Access  
12 Jan 2026

**On-chip nonlocal metasurface for color router: conquering efficiency-loss from spatial-multiplexing**

Yangyang Shi, Shuai Wan ... Zhongyang Li

**Article**  
Open Access  
12 Jan 2026

**Absolute thermometry based on Brillouin scattering in gases**

Yuting Yang, Marcelo A. Soto & Luc Thévenaz

**Article**  
Open Access  
12 Jan 2026

**Integrated, ultrafast all-optical polariton transistors with sub-wavelength grating microcavities**  
Using integrated silicon high-contrast sub-wavelength gratings and organic cavity exciton-polaritons at room temperature, we realize all-optical transistor action with picosecond switching and amplification, as well as ultracompact footprint.

Pietro Tassan, Darius Urbonas ... Thilo Stöferle

**Article**  
Open Access  
12 Jan 2026

**Gradient-graphene-enabled directional photothermal regulation for self-aligned laser transfer printing**  
Self-aligned laser transfer technique achieves high-precision microchip assembly without precise alignment, enabled by gradient-graphene stamp that converts asymmetric light input into uniform heat output, effectively mitigating laser irradiation deviations.

Mengxin Gai, Jing Bian ... YongAn Huang

**Article**  
Open Access  
12 Jan 2026

**Meta-device for sensing subwavelength lateral displacement**  
Two-photon-enhanced lateral displacement metrology with polarization gradient (geometric phase) metasurfaces achieves 97% photon number reduction for high-speed nanoscale mask-wafer alignment in next-generation lithography.

Shufan Chen, Yubin Fan ... Din Ping Tsai

**Article**  
Open Access  
12 Jan 2026

**Multi-dimensional camouflage against VIS-NIR hyperspectral, MIR intensity, and MIR polarization imaging**  
Integrating simultaneous camouflage for intensity, hyperspectral, and polarization dimensions via hierarchical structure.

Rui Qin, Huanzheng Zhu ... Qiang Li

**Article**  
Open Access  
12 Jan 2026

**Self-powered mechanoluminescent elastomer for solar-blind ultraviolet emission**  
We developed a robust self-powered and self-recovered solar-blind UV ML elastomer composed of commercial polydimethylsiloxane and newly synthesized  $\text{Sr}_3(\text{BO}_3)_2\text{Pr}^{3+}$  phosphors. The emerging applications of this UVC ML elastomer in covert optical tagging and microbial sterilization were demonstrated.

Xulong Lv, Tianyi Duan ... Yanjie Liang

**Article**  
Open Access  
08 Jan 2026

**Superradiant terahertz free-electron laser driven by electron microbunch trains**

Yifan Liang, Tong Li ... Lixin Yan

**Article**  
Open Access  
08 Jan 2026

**Colossal infrared nonlinear optical anisotropy in a 2D charge-transfer Mott insulator**  
Giant THG anisotropy in 2D VOCl emerges from a synergistic coupling of charge-transfer Mott insulator behavior with intrinsic  $C_3$  symmetry breaking.

Ruihuan Duan, Song Zhu ... Zheng Li

**Article**  
Open Access  
07 Jan 2026

**Optoretinography reveals rapid rod photoreceptor movement upon rhodopsin activation**  
Optoretinography reveals rapid deformations in human and rodent rod photoreceptors associated with rhodopsin activation, paving the way for label-free imaging of rod dysfunction and visual cycle impairment in retinal diseases.

Haikun Li, Connor E. Weiss ... Tong Ling