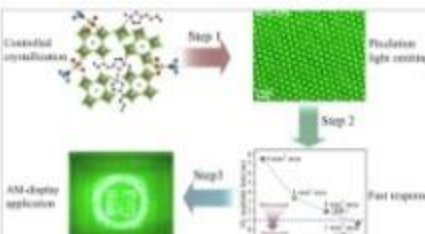
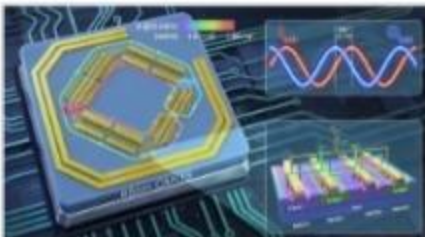
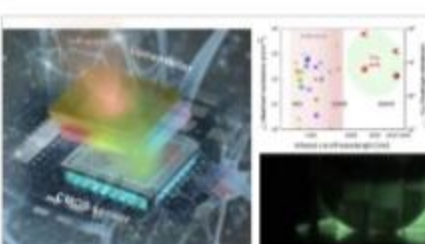
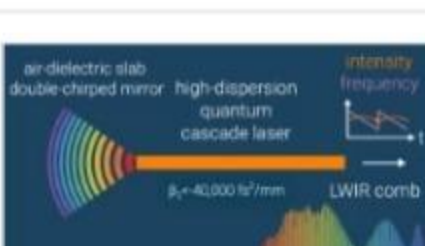

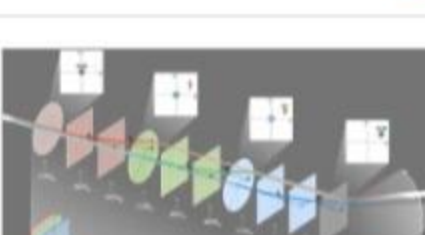
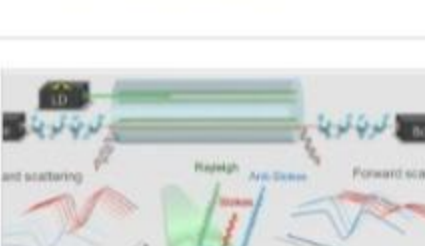


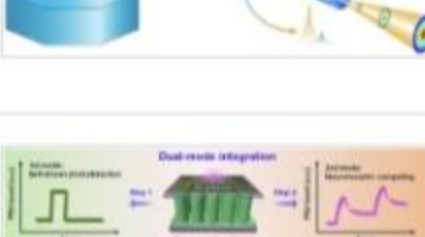
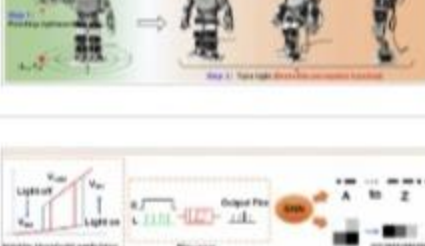


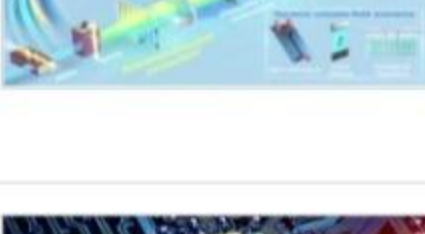




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<div>Research Highlight</div> <div>Open Access</div> <div>19 Aug 2025</div>	<div><b><u>Amplify photo-avalanche nonlinearity beyond 500</u></b></div> <div>Yawei Liu, Kai Liu &amp; Hongjie Zhang</div>	
<div>Article</div> <div>Open Access</div> <div>19 Aug 2025</div>	<div><b><u>Ultrabroadband air-dielectric double-chirped mirrors for laser frequency combs</u></b></div> <div>Using an on-chip dispersion measurement platform, we designed an air-dielectric slab double-chirped mirror integrated into a quantum-cascade laser, achieving room-temperature LWIR combs spanning <math>&gt;100\text{ cm}^{-1}</math> at <math>9.6\text{ }\mu\text{m}</math>.</div> <div>Tianyi Zeng, Yamac Dikmelik ... Qing Hu</div>	
<div>Article</div> <div>Open Access</div> <div>19 Aug 2025</div>	<div><b><u>Electrically pumped surface-emitting amplified spontaneous emission from colloidal quantum dots</u></b></div> <div>Electrically pumped and surface-emitting ASE from solution-casted colloidal QDs has been demonstrated by electro-thermal-optically co-designing of a QLED with high optical gain and large current injection.</div> <div>Fengshou Tian, Tianhong Zhou ... Shuming Chen</div>	
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<div>Article</div> <div>Open Access</div> <div>13 Aug 2025</div>	<div><b><u>Integration of quantum key distribution and high-throughput classical communications in field-deployed multi-core fibers</u></b></div> <div>The world's first integration of quantum key distribution and high-speed classical communications over field-deployed multi-core fiber.</div> <div>Qi Wu, Domenico Ribezzo ... Cristian Antonelli</div>	
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<div>Article</div> <div>Open Access</div> <div>12 Aug 2025</div>	<div><b><u>Visualizing the internalization and biological impact of nanoplastics in live intestinal organoids by Fluorescence Lifetime Imaging Microscopy (FLIM)</u></b></div> <div>Fluorescence Lifetime Imaging Microscopy (FLIM) combined with pristine model NIR MNPs visualizes the internalization and biological impact of the nanoplastics in live small intestinal organoids</div> <div>Irina A. Okkelman, Hang Zhou ... Ruslan I. Dmitriev</div>	
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<div>Article</div> <div>Open Access</div> <div>11 Aug 2025</div>	<div><b><u>Electrical-gain-assisted circularly polarized photodetection based on chiral plasmonic metamaterials</u></b></div> <div>This work proposes an advanced strategy that combines chiral inorganic metamaterials with electrical gain mechanisms to achieve simultaneous enhancement of the responsivity and the asymmetry-factor in circularly polarized light detectors, while ensuring stability.</div> <div>Chenghao Chen, Zhenhai Yang ... Guoyang Cao</div>	

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Author Correction	Author Correction: Advancements in ultrafast photonics: confluence of nonlinear optics and intelligent strategies
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04 Aug 2025	Qing Wu, Liuxing Peng ... Haoran Meng
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Open Access	We demonstrate the first four-state DM CVQKD system generating composable secure keys over 20 km fiber, marking progress toward practical, high-performance, cost-effective, and highly secure QKD networks using standard telecommunication components.
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25 Jul 2025	Manijeh Razeghi, Yanbo Bai & Feihu Wang
Article	Rigid crosslinker-assisted nondestructive direct photolithograph for patterned QLED displays
Open Access	This work innovatively designed a rigid high-LUMO bridging photo-crosslinker for nondestructive high-resolution QD patterns with a resolution of 6350 PPI, and high-performance QLED displays with EQE of 21%.
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Open Access	Size-scalable ZnO QD scintillators for advanced X-ray imaging.Introduction
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