



photonics



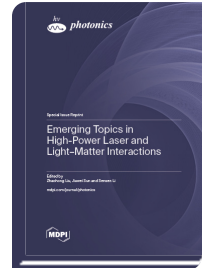
Special Issue Reprint

Emerging Topics in High-Power Laser and Light-Matter Interactions

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This Special Issue of *Phototonics*, “Emerging Topics in High-Power Laser and Light-Matter Interactions”, presents a curated collection of cutting-edge research exploring the dynamic interplay between high-power laser technologies and light-matter interactions. The compilation encompasses advancements in laser source development, pulse manipulation, theoretical modeling, and novel sensing applications, offering insights into the latest experimental, theoretical, and computational methodologies.

Key areas covered include high-power laser technology and applications, optical neural networks, fiber-optic sensing and communication, adaptive optics, short-pulse laser generation via nonlinear optics, Brillouin scattering, solid-state laser systems, spectral imaging, and quantum imaging and quantum optics. These topics are pivotal in advancing applications across industrial processing, biomedical imaging, and quantum information science.

This Special Issue serves as a valuable resource for researchers, engineers, and technologists who are engaged in photonics, providing a comprehensive overview of current trends and future directions in high-power laser systems and light-matter interactions.



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