

## Special Issue

# Optoelectronics for Lasers: Latest Advances and Prospects

### Message from the Guest Editor

Advances in lasers and nonlinear optics provide powerful tools for an increasingly broad range of applications including spectroscopy, metrology, remote sensing, security, material processing, astronomy, medicine, biology, display, and ignitions. Especially, Q-switching and the high brightness that is achievable with giant pulses from mode-locking enable fruitful nonlinear interactions for materials. The purpose of this Issue is to highlight the recent progress and trends in the development of leading-edge lasers. The solicited areas include (but are not limited to): laser physics, spectroscopy, theory, and modelling for materials and cavities; tunable and new wavelength lasers; high-power lasers and power scaling strategies; short-pulse lasers; laser and nonlinear materials; laser structures; pump sources for lasers; narrow-linewidth, frequency-stable, and low-noise lasers; and applications in science, medicine, remote sensing, industry, and display. Therefore, the aim of this Special Issue is to expand the current knowledge in the field and gather high-quality papers dealing with the applications of lasers and nonlinear optics.

---

### Guest Editor

Prof. Dr. Yung-Fu Chen

Department of Electrophysics, National Chiao Tung University Taiwan,  
Hsin-chu 30010, Taiwan

---

### Deadline for manuscript submissions

closed (31 March 2022)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/86330](https://mdpi.com/si/86330)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls-ci@mdpi.com](mailto:appls-ci@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

[appls-ci](https://appls-ci.mdpi.com)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )