

Home Page

The Encyclopedia of Laser Physics and Technology

- over 650 comprehensive encyclopedia articles on photonics, laser technology, fiber optics, lightwave communications and general optics – the largest and most popular photonics encyclopedia worldwide
- freely available online (open access, no registration), and as a two-volume book, published via Wiley-VCH
- connected with the RP Photonics Buyer's Guide: find suppliers for hundreds of photonics products
- related blog: the Photonics Spotlight, also available as a newsletter
- also offers a glossary of photonics terms, articles grouped by categories and the Photonics Quiz
- extremely popular website: far over 50'000 unique visitors per month
- provides interesting opportunities for advertising: banners and various types of Buyer's Guide entries

Further features:

- interactive pulse display
- great flexibility due to scripting
- comprehensive documentation
- competent technical support

Logo



URL

<https://www.rp-photonics.com/encyclopedia.html>

Subject

Physics--Encyclopedias

Accessibility

Free

Language

English

Publisher

RP Photonics Consulting GmbH

Brief History

This comprehensive open-access encyclopedia is authored by Dr. Rüdiger Paschotta and provided by RP Photonics Consulting GmbH.

Scope and Coverage

This encyclopedia explains the physical principles and common techniques in laser technology, while also covering major areas of fiber-optic technology and nonlinear optics, and addressing supplementary topics like ultra short pulses, optical communications, general optics, optoelectronics, and quantum optics. It contains 655

full articles. The encyclopedia covers following main categories:

Categories:	
optical amplifiers	optical metrology
lightwave communications	nonlinear optics
fiber optics and waveguides	photonic devices
fluctuations and noise	physical foundations
general optics	light pulses
lasers	quantum optics
optical materials	optical resonators
methods	

The above categories are further subdivided. Like the main category “Laser” includes sub categories like active mode locking, alexandrite lasers, alignment sensitivity, all-solid-state lasers, amplified spontaneous emission, argon ion lasers, beam combining, beam pointing fluctuations, blue lasers, brightness converters, broad-area laser diodes, bulk lasers, cavity dumping, ceramic gain media, chromium-doped gain media, CO₂ lasers, coherent beam combining, composite laser crystals, continuous-wave operation, cooperative lasing, core-less end caps, etc. and many more.

Kind of Information

In this encyclopedia the article provides information on a particular topic in a different point of views. All the articles start with small definition, along with German terms and instruction of citing the article. After the preliminary information the article then provides different other headings suitable for describing the topic. As for example an article on “Gas Laser” starts with following key facts:

Definition: lasers with a gas (or plasma) as gain medium
German: Gaslaser
Category: lasers
How to cite the article; suggest additional literature

After the above information, the article then describes different types of Gas Lasers, like Helium–neon laser, Argon ion lasers, Krypton ion lasers, Carbon dioxide lasers, Carbon monoxide lasers, Excimer lasers, Nitrogen lasers, Hydrogen lasers, etc.; then different application of gas lasers. At the end the article includes bibliographies and sees also references. The whole text includes lots of internal links.

Special Features

- The encyclopedia offers a glossary of photonics terms.
- The encyclopedia also includes quizzes concerning laser

technology, optical fibers, and nonlinear optics

- The Photonics Spotlight – associated with the Encyclopedia of Laser Physics and Technology is a “blog” (web log) with the purpose of highlighting interesting news and useful information in the area of photonics, particularly laser technology and applications.

Arrangement Pattern

In the homepage the A to Z alphabets are provided to browse the articles under each alphabets. The top bar includes link “Categories” by clicking the button on can get the alphabetic list of categories. The sub categories are also arranged alphabetically under particular categories.

Remarks

This encyclopedia provides good quality physics related articles free of coast which are very much useful for physics students.

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