



# Lasers and Optoelectronics – "Toolmakers of light" at LASER World of PHOTONICS 2015

Munich. Lasers are conquering the world. Nowadays they have become as indispensable in industrial processes as they have in medicine, aerospace, information and communication technology or science and research. The need for highly efficient, accurate beam sources, optics and positioning systems is growing in line with the plethora of applications. The leading manufacturers will be presenting their latest developments in the laser and optoelectronic components field at the world's leading trade fair LASER World of PHOTONICS in June 2015 in Munich. More than 1,100 exhibitors are expected from around the world.

The international trade show LASER World of PHOTONICS is taking place from June 22 - 25, 2015 at the fair ground of Messe München in Munich, Germany. The gathering of the international laser and photonics industry is a must-attend event for laser technology's "enablers", manufacturers of lasers and optoelectronic components.

Their tireless research work is what makes the breakneck diffusion of lasers and their ever increasing accuracy and efficiency possible in the first place. Their development departments are the crucible of this technology of the future. The ever increasing diversity of laser applications is grounded in their inventive talent: whether ultra-short pulse lasers for metrology and material processing, high-power laser diodes that are well on their way to making it into industrial surface processing, or new beam sources for microscopy and spectroscopy that enable high resolutions of unequaled magnitude.

### "Toolmakers of light" trends

Laser and optoelectronic component manufacturers are the key players when it comes to technological progress in the photonics industry. As "toolmakers of light" they create the solutions for which the users in all the application industries are waiting. Core industry trends are increasing miniaturization and precision, energy and raw materials' efficiency and the ever more finely graduated diversification of the spectrum from ultraviolet to infrared. Driven by semiconductor technology, the manufacturers are pushing forward into new areas of performance. Quantum cascade lasers, considered to be a vision just a few years ago, are approaching market maturity. Experts expect this modified semiconductor technology to lend terahertz systems in the medium infra-red spectrum a completely new momentum.

Behind each of these trends is to be found a slew of detailed questions for developers. Where beam sources are emitting even greater power in an even smaller space, cooling becomes a critical factor. Where microscopes permit insights of nanometer (nm) accurate resolution into the metabolism of living cells, this begs the question of equally accurate positioning systems. And where the burgeoning number of multi-kilowatt lasers in industrial three-shift operation is processing materials and consuming three times as much energy as is brought to bear on the processed material, the call for energy efficient system grows louder.

## LASER World of PHOTONICS 2015 showcases the latest developments and creates a sense of direction

Even for experts, it is no easy matter to maintain an overview faced with the plethora of innovations and wide-ranging array of products. As the industry's most important flagship show, LASER World of PHOTONICS 2015 offers the perfect opportunity for an update: in 2015 the experts will be exhibiting in five halls for the first time; two entire halls (B2 and B3) are reserved for the "laser and optoelectronics" field. Three practical lecture series – application panels – are scheduled for the trade fair's accompanying program, in which experts from industry and institutes offer an overview of the latest beam source developments: One panel provides information on the status of pico and femtosecond lasers, a second sheds lights on CW and fiber lasers and a third panel summarizes the latest developments with high performance diode lasers. On the last day of the trade show June 25<sup>th</sup>, 2015, ten BMBF research associations will be presenting the results of their projects running the gamut of ultra-short pulse technology. Trade visitors should therefore ensure they allow enough time to enjoy the innovation and information extravaganza from the world of beam sources, positioning systems and precision optics.

Press releases: <a href="http://world-of-photonics.com/en/laser/press/pressreleases">http://world-of-photonics.com/en/laser/press/pressreleases</a>

More on World of Photonics Congress: http://world-of-photonics.com/en/photonics-congress/start

Photos: http://media.messe-muenchen.de/Laser/index e.jspx#1394615082046 0

#### **About LASER World of PHOTONICS**

The LASER World of PHOTONICS trade fairs and their congresses are the most important marketplaces and think tanks for the worldwide laser and photonics industry and its users. They combine research and applications and promote the utilization and further development of optical technologies.

Messe München International has held <u>LASER World of PHOTONICS</u> every two years since 1973. The fair was the first event to focus on the sector for optical technologies in the world.

At the same time the World of Photonics Congress - Europe's largest and the world's third biggest photonics congress - is held in cooperation with the world's leading organizations in this field.

A spin-off event, <u>LASER World of PHOTONICS CHINA</u>, is the leading regional trade show for optical technologies in China. It takes place in Shanghai every year, in spring. The <u>LASER World of PHOTONICS INDIA</u> takes place since 2012 every year and is a regional trade fair for optical technologies in India.

With a total of **1,860 exhibitors and more than 70,000 visitors** in Munich, China and India, Messe Muenchen International is the world's leading trade show organizer for lasers and photonics.

The websites at www.world-of-photonics.com feature information on the photonics trade shows, industry information, product innovations, and application reports and are a virtual platform for optical technologies.

#### About the conference program at the World of Photonics Congress

The world's leading scientific organizations in the field of photonics will organize conferences under the umbrella of the World of Photonics Congress from June 21 until 25, 2015:

- "CLEO/Europe-EQEC", organized by the European Physical Society (EPS), sponsored by the EPS Quantum Electronics and Optics Division, OSA, IEEE/LEOS
- "Optofluidics", "Manufacturing of Optical Components" and "Advanced Optomechanical "Engineering, organized by the European Optical Society (EOS)
- "LiM Lasers in Manufacturing", organized by the Scientific Laser Society (WLT);
- "ECBO European Conference on Biomedical Optics", organized by the Optical Society of America (OSA) and the International Society for Optics and Photonics (SPIE)
- Optical Metrology, organized by SPIE Europe

The conference program is rounded out by application panels featuring practical lectures about laser and photonics applications organized by Messe München.

#### Messe München International

Messe München International is one of the world's leading trade show companies. In Munich alone it organizes around 40 trade shows for capital and consumer goods, and key high tech industries. Each year more than 30,000 exhibitors and around two million visitors take part in the events held at the Messe München exhibition center, the ICM – International Congress Center München, and in the MOC Veranstaltungscenter München. The leading international trade fairs of Messe München International are all independently audited. In addition, Messe München International organizes trade shows in China, India, Turkey and South Africa. With a combination of affiliates abroad – in Europe, Asia and in Africa – and over 60 foreign representatives actively serving over 100 countries, Messe München International has a worldwide business network. The Group also takes a pioneering role as regards sustainability: It is the first trade-fair company to be awarded energy-efficiency certification from the technical inspection authorities TÜV SÜD.

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