



EXPERIENCE SAN JOSE IN A WHOLE NEW LIGHT

[SUBMIT A PAPER](#)

[REGISTER](#)

[HOUSING](#)

[EXHIBIT](#)

[INTERNATIONAL VISITORS](#)

- [About CLEO/QELS](#)
- [Conference Program](#)
- [Short Courses](#)
- [Exhibit Hall](#)
- [Registration & Housing](#)
- [Special Events](#)
- [Submissions](#)
- [Student Programs](#)
- [Exhibitors](#)
- [Career Center](#)
- [Media Center](#)
- [Press and Analysts](#)
- [PR Professionals](#)
- [Frequently Asked Questions](#)
- [Contact Us](#)

Media Center

FOR IMMEDIATE RELEASE

Contact:

Angela Stark

CLEO/QELS & PhAST

202.416.1443

astark@osa.org

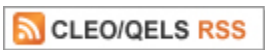
PhAST/Laser Focus World Innovation Award Goes to Coherent, Inc.

New OPSL technology provides tailored laser wavelength for significantly improved treatment of macular degeneration

WASHINGTON, April 29 -- The Photonic Applications, Systems and Technologies (*PhAST*) Conference and *Laser Focus World* magazine are pleased to announce that Coherent, Inc. has been selected as the recipient of this year's *PhAST/Laser Focus World* Innovation Award. The award recognizes the company for the OPSL-577-3 for its twin embodiment of technical and application innovation in exploiting the wavelength and power scalability of optically pumped semiconductor laser (OPSL) technology. Coherent will be accepting this award at the CLEO Plenary Session on Monday, May 5 at 6 p.m. in the San Jose Civic Auditorium at the San Jose McEnery Convention Center in San Jose, Calif.

"Coherent is leading the pack in the development of precisely scalable lasers for customizable use in a variety of applications," said *PhAST* Co-Chair David Huff. "This new laser not only advances how the photonics industry can apply laser technology, but also offers hope for the thousands of sufferers of macular degeneration."

The OPSL-577-3 is the first laser to fully exploit the wavelength and power scalability of optically pumped semiconductor (OPS) technology to deliver several watts at an application-optimized wavelength rather than a legacy wavelength. In fact,



The Conference on



CLEO/QELS is presented by:



it is the first new visible laser wavelength offered in this industry for many years. From an applications viewpoint, the 577 nm output brings the promise of a significant improvement in photocoagulation treatment for the many sufferers of wet-form macular degeneration, a leading cause of age-related blindness that affects up to 250,000 people in the United States alone.

The laser is expected to significantly enhance the efficacy of photocoagulation as a treatment modality for wet-form macular degeneration. This disease is episodic in nature, characterized by periodic ruptures of small blood vessels in the retina. The goal of laser photocoagulation is to seal the leaking vessel without damaging peripheral tissue. Since leaking blood is the main differentiating material between the target area and surrounding tissue, this goal can best be achieved by using a laser wavelength that is selectively and effectively absorbed by blood. Moreover, this should be a visible laser wavelength, allowing it to be delivered through the front of the eye without any damage to the lens or aqueous humor.

In recent years, this sealing has been accomplished using the 532 nm output of DPSS lasers; the 532 nm is near a weaker absorption of oxy-hemoglobin. However, the visible absorption spectrum of oxy-hemoglobin actually peaks at 577 nm. So the OPSL-577-3 has been designed to deliver more than 3 watts output at this specific wavelength. At a very minimum, this will allow improved vessel closure with reduced thermal loading on the eye.

OPSL technology can be scaled to any pre-determined wavelength and any power level – up to a current maximum of several watts. So it offers a completely different approach to applications development where the laser output is now precisely tailored to the exact needs of the application rather than vice versa. In this case, the 577 nm yellow output of the OPSL-577-3 has been designed to match the requirements of laser photocoagulation for treating macular degeneration.

“The innovation awards are a great opportunity to recognize excellence in the lasers and electro-optics industry,” said Steve Andersen, editor-in-chief, *Laser Focus World*. “We had a number of strong submissions for this year’s awards and are impressed with the advances CLEO exhibiting companies are making in the field.”

In addition to the award given to Coherent, five honorable mention products were chosen from all entries. The honorable mentions are as follows:

- **Amplitude Systemes**

TANGERINE: 20W High Energy Diode-Pumped Ultrafast Fiber Amplifier

For the introduction of a unique ultrafast fiber amplifier, offering both a high energy level and a high average power.

- **ColdQuanta, Inc.**

The RuBECi Ultracold Matter Cell

For the development of the industry’s first commercial instrument designed to enable the production of Bose-Einstein Condensates (BECs) and related forms of ultracold matter.

- **Edmund Optics, Inc.**

Low-cost, Color Corrected Aspheres

For presenting the industry’s first color-corrected aspherical components.

- **Holochip Corp.**

Adaptive Polymer Lens: APL™-1050

For introducing an adaptive polymer, singlet fluidic lens with a variable focal length.

- **Picometrix, LLC**

T-Ray™ 4000 Time Domain Terahertz Product Platform

For creating a transportable terahertz system that is precise enough for manufacturing, process control or data collection.

The honorable mentions will be recognized by the *PhAST* chairs during the CLEO Plenary Session.

The *PhAST/Laser Focus World* Innovation Awards Program honors the most timely, ground-breaking products in the field of laser science. Entries are evaluated on criteria critical to product success: impact, functionality, life expectancy, effect on the optics industry, innovation and patents or trademarks.

For more information on the *PhAST/Laser Focus World* Innovation Award, visit <http://www.phastconference.org/innovation/>.

About *PhAST*

PhAST is dedicated to presenting the latest breakthroughs in Photonic Applications, Systems and Technologies. Photonics has moved out of the laboratory and into the products and services that have changed our daily lives. *PhAST* is where engineers and applications specialists receive up-to-the-minute information on industry trends and the next wave of applications. *PhAST* programming takes place over three days and includes plenary sessions, invited presentations, panel discussions, a leading exhibit, innovation presentations and networking receptions. Now in its 5th year, *PhAST* is collocated with the Conference on Lasers and Electro-Optics (CLEO) and the Quantum Electronics and Laser Science Conference (QELS), two of the photonic industry's leading conferences covering basic and applied research breakthroughs.

About *Laser Focus World*

Published since 1965, *Laser Focus World* is a global media franchise for engineers, researchers, scientists, and technical professionals that provides comprehensive global coverage of optoelectronic and photonic technologies, applications, and markets. The magazine and its related web site (www.laserfocusworld.com) reports on and analyzes the latest developments and trends in technology and business in the worldwide optoelectronic and photonics industry.

About PennWell Corporation

The publisher of *Laser Focus World*, PennWell Corporation is a diversified business-to-business media and information company that provides quality content and integrated marketing solutions for the following global industries: oil and gas, electric power, water, electronics, semiconductor, contamination control, optoelectronics, fiber optics, computer graphics, enterprise storage, information technology, fire, emergency services and dental. Founded in 1910, PennWell publishes 75 print and online magazines and newsletters, conducts 60 conferences and exhibitions on six continents, and has an extensive offering of books, maps, directories, web sites, research, and database services. In addition to PennWell's headquarters in Tulsa, Oklahoma, the company has offices in Nashua, New Hampshire; Houston, Texas; London, England and other locations worldwide.

###

[Register](#) [Housing](#) [Exhibit](#) [International Visitors](#) [Submit A Paper](#)