

# Remembering Maiman

This month, the CLEO/QELS conference has a tribute symposium to the famous laser inventor Ted Maiman. Be sure not to miss it.

Many readers may not have realized but this year's CLEO/QELS conference in San Jose, USA, from 4 to 9 May coincides exactly with the first anniversary of the death of the famous laser pioneer Theodore Maiman, who passed away on 5 May 2007 (ref. 1).

As a tribute to Maiman's achievements, the most notable being his demonstration in May 1960 of the first working laser, CLEO/QELS 08 will feature a special symposium in his honour. The half-day symposium (3–6 pm Sunday 4 May, for more details and to register see the CLEO/QELS website, ref. 2) will describe the events leading to the first laser and the impact that it has had on all aspects of modern society.

Speakers include Maiman's wife Kathleen, who will give a talk entitled 'The Man Behind the First Laser', and Jeff Hecht, the author of the 2005 book *Beam: The Race to Make the Laser*, who will recount the history of the laser's invention. They will be joined by David Hanna from the University of Southampton, who will offer 'Some Thoughts on 48 Years of Lasing', and three speakers from the Western Institute for Laser Treatment and Millennium Dental, who will describe the impact of the laser in the world of medicine. It will no doubt make for a fascinating afternoon and a time to reflect on just how far laser science has progressed in the past 50 years.

In addition, the OSA Foundation will use the occasion to announce the creation of an annual award recognizing innovation and research excellence in the field of photonics. The 'Theodore Maiman Student Paper Award' will be awarded each year to a student presenter at CLEO/QELS. The award is supported by HRL Laboratories (formerly known as



Hughes Research Laboratories, and where Maiman conducted his laser research), IEEE-LEOS and the APS Division of Laser Science.

If you are attending this year's CLEO/QELS please don't forget to attend the symposium, and drop by Nature Publishing Group's stand to say hello and pick up the latest copy of our journals.

Although the laser has no doubt transformed the world around us, we should not forget that other photonic technologies are also making a profound impact. An example is made in this month's profile on p261 entitled 'Light at the end of the poverty tunnel'<sup>3</sup>. Although lasers may not yet have found wide-scale use in the developing world, it seems that white LEDs are now starting to have a profound impact. Thanks to the dedication of David Irvine-Halliday and his 'Light up the World' organization<sup>4</sup>, more than 100,000 people in 42 countries, including Nepal, India, Afghanistan and Sri Lanka, now have access to long-lasting

and affordable solid-state lighting based on white LEDs.

Irvine-Halliday, a professor of electrical engineering from the University of Calgary in Canada, formed Light up the World in 2002, with a mission to supply cost-effective electrical lighting to 2 billion people worldwide who would otherwise not have it. As many of these people are not connected to the electrical grid, the white LED lighting is typically powered by small generators or batteries that are recharged by solar panels. Compared with incandescent and fluorescent lighting LED-based lamps are ideal, as they are long-lasting (typical lifespan of 50,000 hours), very efficient (25–50 lumens per watt) and typically consume 1 W or less of electricity. What's more they are not dangerous like the kerosene lamps that are typically used by people without access to electricity.

Indeed, lighting is not the only way that LEDs can help people living or travelling in difficult conditions. The advent of powerful UV-LEDs has also made portable battery-powered water purifiers based on LEDs a reality. Such devices that are often about the size of a pen, have now been commercialized by firms such as Hydro-Photon<sup>5</sup> and can sterilize 1 litre of water in under 2 minutes, making it safe to drink.

The simple combination of two photonic technologies — LEDs and solar power — looks set to be a powerful combination for creating light and making safe drinking water on an affordable and sustainable basis.

## References

1. Hecht, J. *Nature Photon.* **1**, 372–373 (2007).
2. [http://www.cleoconference.org/conference\\_program](http://www.cleoconference.org/conference_program)
3. Jenkins, A. *Nature Photon.* **2**, 261–263 (2008).
4. <http://www.lutw.org>
5. <http://www.hydro-photon.com/index.html>