

From the Editor

Laser & Photonics Reviews in its fifth year

Again a year has passed and it's time to look back at what has been achieved. Briefly, the journal has grown on several accounts. First, there has been a growing number of review articles over the years, from 14 in 2007 to 45 in 2010. Second, after having received its first impact factor (IF) 4.357 in 2008, one year later the IF grew to the current value of 5.814 according to Thomson Reuters Journal Citation Report® – and there is every reason to expect this trend to continue. Third, the awareness in the optics community has grown, too. The article download numbers increased steadily over time. High-ranking scientists are willing to support the journal with their valuable contributions, and more and more researchers take up this information and refer to it in their own publications. Also, the number of advisory board members has increased over the years, starting from five in 2007 to currently 15 members. It can be gladly reported that none of them failed to support the editor whenever needed. Thanks for this! Luckily, the journal is also well received by the referees, making the peer-review a joyful and inspiring experience.

In 2010 the layout of the journal has been changed, e.g. the front cover has been redesigned to give more space for cover pictures – a measure well received by the authors. Now, in 2011, the layout and haptics continue to change by introducing a more compact article layout and a reduction in paper weight – both to the benefit of nature as well as library space. Since 2010, selected articles of *Laser & Photonics Reviews* are accompanied by news texts that appear online on www.photonicsviews.com or other news platforms.

Now, let us turn to the present. This year we start with the “Light and Life: Biophotonics Special”. Biophotonics is a booming area of research with many potential applications in healthcare and life sciences as evidenced by a rapidly growing number of biophotonic publications and an increased number of conferences, workshops, collaborations and exhibitions that deal with biophotonic topics and applications.

In his editorial Arthur Ashkin gives us a close insight into the invention of one particularly important technique in biophotonics – the optical tweezers (see page A7). As a reading suggestion we would like to mention the review article by Thomas Perkins [1] that was published two years ago in this journal. As Ashkin and Perkins explain, this invention continues to make a huge impact in life sciences

and will surely inspire more excellent research in the future. Further topics in this issue “Light and Life” are laser therapy and its possible medical applications (Tata, Waynant, p. 1), second harmonic generation microscopy (Campagnola, Dong, p. 13), photonic nanoarchitectures in butterflies and beetles as sources for bioinspiration (Biró, Vigneron, p. 27), in vivo fluorescence correlation spectroscopy (Mütze et al. p. 52), neural stimulation with optical radiation (Richter et al., p. 68), spatial light modulators in optical microscopy (Maurer et al., p. 81), femtosecond stimulated Raman spectroscopy (Frontiera, Mathies, p. 102), resonant energy transfer (Andrews et al., p. 114), and last but not last terahertz spectroscopy and imaging (Jepsen et al., p. 124).

Laser & Photonics Reviews reports frequently about topics in biophotonics, like the special section “Biophotonics for Biology” in issue 1/2009, and biophotonics articles appear in regular issues throughout the year, like Montiel and Yang's work about single-particle tracking spectroscopy for complex systems [2] or Sugioka et al. describing 3D micromachining using femtosecond lasers for biomicrochip manufacture [3]. A selection of recent *Laser & Photonics Reviews* biophotonics articles can be found on page A5.

We hope that you will enjoy our present and past collection of biophotonics contributions, and wish you a pleasant reading.

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Editor Laser & Photonics Reviews

References

- [1] T. T. Perkins, Optical traps for single molecule biophysics: a primer, *Laser Photon. Rev.* **3**, 203–220 (2009), DOI 10.1002/lpor.200810014.
- [2] D. Montiel, and H. Yang, Real-time three-dimensional single-particle tracking spectroscopy for complex systems, *Laser Photon. Rev.* **4**, 374–385 (2010), DOI 10.1002/lpor.200910012.
- [3] K. Sugioka, Y. Hanada, and K. Midorikawa, 3D micromachining using femtosecond lasers for biomicrochip manufacture, *Laser Photon. Rev.* **4**, 386–400 (2010), DOI 10.1002/lpor.200810074.