



Transforming science into technology™

Call for Papers

Announcing an Issue of the IEEE
JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS on
Biophotonics

Submission Deadline: October 1, 2020
Hard Copy Publication: July/August 2021

The IEEE Journal of Selected Topics in Quantum Electronics (JSTQE) invites manuscript submissions in **Biophotonics**. The emerging field of **Biophotonics** has opened up new horizons for extensive transfer of state-of-the-art technologies coming from the areas of quantum electronics, lasers and electro-optics to the life sciences and medicine. Recently developed innovative biophotonics technologies impose significant impact on biomedical research and public health, since they provide advanced minimally invasive, rapid and cost-effective techniques for precise diagnostics, monitoring and treatment of a variety of diseases. The *IEEE Journal of Selected Topics in Quantum Electronics* invites manuscript submissions in the area of **Biophotonics**. The purpose of this issue of JSTQE is to highlight the recent progress and trends in developing leading-edge biophotonics technologies. Areas of interest include (but are not limited to):

Advanced biophotonics imaging, sensing and diagnostic methods and systems

- Emerging biophotonics imaging techniques including cellular/intracellular, molecular, 3D endoscopic, translational clinical, photoacoustic, photothermal, diffuse, phase-sensitive, OCT, confocal, terahertz, machine learning, microscopic and multi-photon *in-vivo* bioimaging
- Spectroscopy-based diagnostics including fluorescence, Raman, elastic scattering, evanescent-wave, near-/mid-IR spectroscopy
- Novel biophotonics sensing techniques
- Multi-modal biophotonics diagnostics

Progress in minimally-invasive biophotonics therapeutic techniques

- Ultrashort pulse laser tissue therapeutics
- Precise laser tissue manipulation in ophthalmology, dentistry, dermatology, cardiology, neurosurgery, photodynamic cancer therapy
- Robotic and imaging guided targeted laser surgery
- Novel photobiomodulation therapeutic techniques and dominant light-tissue-interaction mechanisms at cellular and tissue level
- Light-assisted nerve and neuron-growth stimulation, cellular/tissue repair, optogenetics, photoimmunotherapy
- optical and laser radiation safety evaluation and dosimetry

Development of novel laser, fiber-optic and electro-optic biophotonics tools and devices

The Primary Guest Editor for this issue is **Ilko Ilev**, U.S. Food and Drug Administration, USA. The Guest Editors are: **David Nolte**, Purdue University, USA; **Qiyin Fang**, McMaster University, Canada; **Giuliano Scarcelli**, University of Maryland, USA; **Yuji Matsuura**, Tohoku University, Japan; **William Calhoun**, U.S. Food and Drug Administration, USA; and **Thomas Huser**, University of Bielefeld, Germany.

The deadline for submission of manuscripts is **October 1, 2020**. Hardcopy publication of the issue is scheduled for **July/August 2021**.

Unedited preprints of accepted manuscripts are normally posted online on IEEE Xplore within 1 week of the final files being uploaded by the author(s) on ScholarOne Manuscripts. Posted preprints have digital object identifiers (DOIs) assigned to them and are fully citable. Once available, the preprints are replaced by final copy-edited and XML-tagged versions of manuscripts on IEEE Xplore. This usually occurs well before the hardcopy publication date. These final versions have article numbers assigned to them to accelerate the online publication; the same article numbers are used for the print versions of JSTQE.

For inquiries, please contact:

IEEE Photonics Society JSTQE Editorial Office - Chin Tan Lutz (Phone: 732-465-5813, Email: c.tanlutz@ieee.org)

The following documents located at <http://mc.manuscriptcentral.com/jstqe-pho> are required during the mandatory online submission.

1) PDF or MS Word manuscript (double column format, up to 12 pages for an invited paper, up to 8 pages for a contributed paper). Manuscripts over the standard page limit will have an overlength charge of \$220.00 per page imposed. Biographies of all authors are mandatory, photographs are optional. See the Tools for Authors link: www.ieee.org/web/publications/authors/transjnl/index.html.

JSTQE uses the iThenticate software to detect instances of overlapping and similar text in submitted manuscripts and previously published papers. Authors should ensure that relevant previously published papers are cited and that instances of similarity are justified by clearly stating the distinction between a submitted paper and previous publications.