

FIBRE WAVEGUIDES, LASERS AND AMPLIFIERS: PROPERTIES AND APPLICATIONS

PACS numbers: 01.30.Cc; 42.55.Wd; 42.81.–i
DOI: 10.1070/QE2012v042n09ABEH014943

Fifth Russian Workshop on Fibre Lasers

A.S. Kurkov

The Fifth Russian Workshop on Fibre Lasers was held in Akademgorodok, Novosibirsk, Russia on 27–30 March 2012. The idea to organise the workshop emerged in summer 2006 during an English-speaking conference held in Russia, where most participants were Russians. After a session where a Russian-speaking scientist reported his achievements to other Russian-speaking scientists in broken English, a group of attendees came up with the idea to launch a scientific workshop in Russian. That group included S. Turitsyn (Aston University, UK), S. Kobtsev (Novosibirsk State University, Novosibirsk), S. Babin [Institute of Automation and Electrometry, Siberian Branch (SB), Russian Academy of Sciences (RAS), Novosibirsk], and me. The workshop was planned to be organised on the following basic principles:

reports should be presented in Russian;

Russian-speaking scientists from abroad should be invited, which would raise the scientific level of the workshop and improve links between the Russian scientific diaspora abroad and the RF scientific community;

students, postgraduates and young scientists should be invited; and

as favourable conditions as possible should be ensured for informal communication.

The idea was realised in April 2007, when the First Russian Workshop on Fibre Lasers was held in Akademgorodok, Novosibirsk, Russia. The next workshops were held in Saratov, Ufa and Ulyanovsk. In 2012, the workshop was organised by the Institute of Automation and Electrometry (IAE), SB, RAS; the Fiber Optics Research Center (FORC), RAS; Novosibirsk State University; A.M. Prokhorov General Physics Institute, RAS; and the Institute of Computational Technologies, SB, RAS.

The scientific program of the workshop covered the following issues:

novel media, schemes and operation modes of fibre lasers;

pulsed fibre and hybrid lasers, supercontinuum generation;

nonlinear frequency conversion techniques for fibre lasers: stimulated Raman scattering, stimulated Brillouin scattering, parametric and harmonic generation; and

applications of fibre lasers: communication systems, sensors, biomedicine, materials processing and photomodification.

The workshop was accompanied by the Photonics and Optical Technologies young scientists contest/conference, where leading experts' lectures and young scientists' reports were presented, and included a nanophotonics, plasmonics and metamaterials joint session.

The workshop brought together more than hundred attendees from universities, scientific institutes and industry of Novosibirsk, Moscow, Chernogolovka, Fryazino, Dolgoprudnyi, Ulyanovsk, Saratov, Kazan, Ufa, Perm, St. Petersburg, Snezhinsk, Samara and Vladivostok and from institutions of the United States, the United Kingdom, Finland, Germany, Belgium and Austria.

The Workshop Chair was Academician E.M. Dianov (FORC), and the Organising Committee was chaired by Academician A.M. Shalagin (IAE).

Dianov presented a plenary lecture devoted to recent advances in the engineering and characterisation of bismuth-doped fibres and related lasers and amplifiers. Considerable interest was attracted by the invited lectures Loss-Compensated Nanomaterials (V.P. Drachev, Purdue University, USA), Nonlinear Metamaterials (I.R. Gabitov, University of Arizona), Nonlinear Dynamics in Multicore Optical Fibres (S.K. Turitsyn, Aston University, UK) and High-Power Megahertz Femtosecond Laser Systems: Fibre against Disk and Slab (A.A. Apolonski, Ludwig Maximilians University Munich, Germany).

It is worth noting that several lectures were concerned with mid-IR radiation sources, random distributed feedback lasers and coherent summation of fibre laser outputs.

The young scientists contest/conference included the review lectures Femtosecond Index Modification in Optical Fibres (V.K. Mezentsev, Aston University, UK) and Brillouin Fibre Lasers and Sensors (A.A. Fotiadi, University of Mons, Belgium).

This issue of Quantum Electronics includes a number of articles based on the reports presented at the workshop.

A.S. Kurkov A.M. Prokhorov General Physics Institute, Russian Academy of Sciences, ul. Vavilova 38, 119991 Moscow, Russia; e-mail: kurkov@kapella.gpi.ru

Received 30 July 2012
Kvantovaya Elektronika **42** (9) 753 (2012)
Translated by O.M. Tsarev