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**Victor F. Tarasenko
Andrei M. Kabanov**
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Session Chairs

- A Gas and Plasma Lasers, Metal Vapor Lasers
Anna V. Vasilieva, Tomsk State University (Russian Federation)
Nikolay A. Yudin, Tomsk State University (Russian Federation)
- B Photonics of Optical Materials, Optoelectronics
Ruslan M. Gadirov, Tomsk State University (Russian Federation)
T. Kopylova, Siberian Physical Technical Institute (Russian Federation)
- C Femtosecond Laser Systems
L. Mikheev, P.N. Lebedev Physical Institute of the RAS
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Andrey Buligin, V.E. Zuev Institute of Atmospheric Optics of Siberian
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- D Laser Systems and New Laser and Optical Technologies, Laser Applications
G. Evtushenko, Tomsk Polytechnic University (Russian Federation)
Kazaryan Mishik, P.N. Lebedev Physical Institute of the RAS (Russian Federation)
Stanislav N. Torgaev, Tomsk Polytechnic University (Russian Federation)
- E Non-coherent UV and VUV-Radiation Sources
E. Sosnin, Institute of High Current Electronics of Siberian Branch of RAS (Russian Federation)
Evgeniy I. Lipatov, Institute of High Current Electronics of Siberian Branch of RAS (Russian Federation)
- F Conversion of Laser Radiation, Optoelectronic Devices, Nonlinear Optics
John Molloy, National Physical Laboratory (United Kingdom)
V. Svetlichnyi, Siberian Physical Technical Institute (Russian Federation)
- G Biophotonics
Yu. Kistenev, Tomsk State University (Russian Federation)
Galina Zvereva, S.I. Vavilov State Optical Institute (Russian Federation)
- H Gas Discharges for Lasers and Non-coherent Radiation Sources
V. F. Tarasenko, Institute of High Current Electronics of Siberian Branch of RAS (Russian Federation)
Mikhail V. Erofeev, Institute of High Current Electronics of Siberian Branch of RAS (Russian Federation), National Research Tomsk Polytechnic University (Russian Federation)
George Naidis, High Temperature Institute of RAS (Russian Federation)
- Y AMPL School
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Anton V. Klimkin, V.E. Zuev Institute of Atmospheric Optics of Siberian Branch of RAS (Russian Federation)

Introduction

The conference organizers of the Thirteenth International Conference on Atomic and Molecular Pulsed Lasers (AMPL) included: the Institute of Atmospheric Optics Siberian Branch of the RAS (Russian Federation), the Institute of High Current Electronics Siberian Branch of the RAS (Russian Federation), the Institute of Monitoring of Climatic and Ecological System of the RAS (Russian Federation), Tomsk State University (Russian Federation), Tomsk Polytechnic University (Russian Federation), the Siberian Physical Technical Institute (Russian Institute), P.N. Lebedev Physics Institute RAS (Russian Federation), and the A.M. Prokhorov General Physics Institute RAS (Russian Federation).

AMPL has traditionally been devoted to subjects such as physical processes in laser active media, new active media and pumping methods, new lasers development technologies, fundamental issues of laser physics, and non-coherent UV and VUV-radiation sources. One of the principal goals of the conference has been contiguity of fundamental and applied sciences. Therefore, much attention was paid to the application of lasers and excilamps in science, engineering, medicine, and other areas of activity, as well as to discussion of problems of laser and excilamp-based apparatus and new optical technologies.

The scientific program of the conference included papers from the following sessions:

- Session A: Gas and Plasma Lasers, Metal Vapor Lasers;
- Session B: Photonics of Optical Materials, Optoelectronics;
- Session C: Femtosecond Laser Systems;
- Session D: Laser Systems and New Laser and Optical Technologies, Laser Applications;
- Session E : Non-coherent UV and VUV-Radiation Sources;
- Session F: Conversion of Laser Radiation, Optoelectronic Devices, Nonlinear Optics

We wish to thank our sponsors for their contributions to the success of the symposium: Russian Foundation for Basic Research (Russian Federation), Siberian Branch of Russian Academy of Sciences (Russian Federation), "TOPAZ" Research and Inculcation Enterprise (Russian Federation), Crystaltechno Ltd., Moscow (Russian Federation), SP Equipment, Novosibirsk (Russian Federation), Intech Analytics Corporation, St. Petersburg (Russian Federation), IC Specpostavka, Saint-Petersburg (Russian Federation), and CLZ Ltd, Moscow (Russian Federation).

The International Conference on Atomic and Molecular Pulsed Lasers was first held in Tomsk (Russian Federation) in 1992; and in 1995 it became a biennial scientific forum hosted in Tomsk (Russian Federation).

The AMPL agenda has covered the following issues: physical processes in gas lasers, including excimer lasers, metal vapor lasers, and plasma lasers; dye lasers and photoprocesses in complex organic molecules, photonics of optical materials; incoherent UV and VUV sources; diffuse discharges initiated by runaway electrons; conversion of laser radiation; optoelectronic devices; laser systems and advanced laser optics technologies; applications of lasers in different fields of science and technology, including ecology, medicine, industry, scientific research, struggle against terrorism; creation of laser-based devices. The AMPL program has also covered related issues such as research in non-laser pulsed UV sources, nonconventional isotope separation methods, optoacoustic devices, etc. Since 2009 it has included problems of femtosecond laser systems. The conference has also provided special sessions. In particular, a special session devoted to diffuse discharges initiated by runaway electrons was organized two times: in 2011 and 2013.

Generally, about two hundred reports (of which half tend to be oral) get presented at the conference. The AMPL conference has gained wide acceptance in the scientific community involved with laser research, attracting scientists from different countries and cities of the Russian Federation, which would be impossible without close cooperation of Tomsk scientific and educational institutions. Students from Tomsk State University (Russian Federation) and Tomsk Polytechnic University (Russian Federation) have attended each conference. An AMPL School Conference of young scientists has been held as part of each AMPL conference. During the conference, excursions were made to scientific laboratories of Tomsk institutes and universities.

The conference was held twelve times and all twelve times the Chair of its Organizing Committee was Professor Victor F. Tarasenko from the Institute of High Current Electronics, Siberian Branch of the RAS (Russian Federation). The conference materials have been published and can be found in issues of Atmospheric and Ocean Optics (*Optika Atmosfery i Okeana*), collections of the International Society for Optics and Photonics (1995- V.2619; 1997- V.3403; 1999- V.4071; 2001- V.4747; 2003- V.5483; 2005- V.6263; and 2008- V. 6938), Quantum Electronics (*Kvantovaya Elektronika*), and the Bulletin of the Tomsk Polytechnic University (*Izvestia TPU*).

The next AMPL conference in Tomsk will take place in September 2019.

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