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Laser Technology VIII: Applications of Lasers

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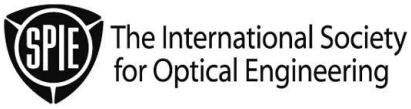

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Introduction

Laser Technology VIII was the eighth symposium in a periodical series that deals with advances in the state of the art of laser technology in Poland. Historically, this series of symposia has evolved since 1984 due to the activity of the Committee on Electronics and Telecommunication of the Polish Academy of Sciences and the support of relevant universities.

The first symposium on Laser Technology was organized and hosted by the Nicolaus Copernicus University at Toruń and co-organized by Warsaw University of Technology, Military University of Technology, and Industrial Center of Optics in Warsaw. Three volumes of proceedings were published in June 1984 and some time after that event.

Laser Technology II was organized in 1987 by Szczecin University of Technology, Warsaw University of Technology, and Military University of Technology. The host of the symposium was the Institute of Industrial Automation Szczecin University of Technology. The symposium provided material for four volumes of proceedings. Two of them were published in Polish (a volume of 140 contributed papers and volume of 14 invited papers) and two in English (a volume of abstracts and SPIE Proceedings Vol. 859).

Laser Technology III was organized in 1990 also by Szczecin University of Technology, Warsaw University of Technology, and Military University of Technology. It was hosted by the Institute of Industrial Automation of Szczecin University of Technology. The symposium provided materials for four volumes of proceedings. Two of them were published in Polish (a volume of 140 contributed papers and another of invited papers) and two in English (a volume of abstracts and SPIE Proceedings Vol. 1391).

Laser Technology IV was organized in 1993 by Szczecin University of Technology, Warsaw University of Technology, and Military University of Technology. The host of the symposium was the Institute of Electronics and Computer Science of Szczecin University of Technology. The symposium provided material for five volumes of proceedings. Two of them were published in Polish (a volume of contributed papers and another of invited papers) and three in English (a volume of abstracts and SPIE Proceedings Vol. 2202 and 2203).

Laser Technology V was organized in 1996 by Szczecin University of Technology, Warsaw University of Technology, and Military University of Technology. The host of the symposium was the Institute of Electronics and Computer Science of Szczecin University of Technology. The symposium provided material for five volumes of proceedings. Two of them were published in Polish (a volume of contributed

papers and another of invited papers) and three in English (SPIE Proceedings Vol. 3186, 3187, and 3188).

Laser Technology VI was organized in1999 by Szczecin University of Technology, Warsaw University of Technology, Military University of Technology, and by the Committee for Optoelectronics of the Association of Polish Electrical Engineers under auspices of the Polish Academy of Sciences Committee on Electronics and Telecommunication. The symposium provided material for four volumes of proceedings. Two of them were published in Polish (a volume of contributed papers and another of invited papers) and two in English (SPIE Proceedings Vol. 4237 and 4238).

Laser Technology VII was organized in 2002 also by Szczecin University of Technology, Warsaw University of Technology, Military University of Technology, and by the Committee for Optoelectronics of the Association of Polish Electrical Engineers and SPIE Poland Chapter under auspices of the Polish Academy of Sciences Committee on Electronics and Telecommunication. The symposium provided material for four volumes of proceedings. Two of them were published in Polish (a volume of contributed papers and another of invited papers) and two in English (SPIE Proceedings Vol. 5229 and 5230).

Laser Technology VIII was organized in 2006 also by Szczecin University of Technology, Warsaw University of Technology, Military University of Technology, the Committee for Optoelectronics of the Association of Polish Electrical Engineers, and SPIE Poland Chapter, under the auspices of the Polish Academy of Sciences Committee on Electronics and Telecommunication. This recent symposium was hosted by the Institute of Electronics, Telecommunications and Computer Science of Technical University of Szczecin and held in Świnoujście on 25–29 September 2006. Approximately 130 participants including a number of foreign guests attended this symposium. Professor Wiesław Woliński, Chairman of the Polish Committee for Optoelectronics and the Committee on Electronics and Telecommunication, presented the welcome address and opened the meeting. The opening lecture "Single-frequency solid-state micro lasers" was given by Arkadiusz Antończak, Jarosław Sator, and Krzysztof Abramski.

The topics of Laser Technology VIII were as follows: (1) new active media, component and laser subassembly construction problems; (2) solid-state, semiconductor, gas, ion, and other laser types; (3) laser radiation: amplification, generation, stabilization, synchronization, frequency multiplying, and pulse shaping; (4) laser beams: collimation, focusing, polarization, filtration, modulation, and detection; (5) measurements of lasers and their radiation; (6) equipment cooperating with lasers; (7) laser applications in material processing, medicine, and metrology. Included in these topics were 44 oral papers and 86 contributed papers.

The symposium provided materials for four volumes of proceedings. Two of them were published in Polish (a volume of 36 oral papers and another of 71 contributed papers) and two SPIE Proceedings in English. The editors of these volumes present the full texts of chosen and reviewed 61 papers by authors affiliated primarily with university-based laboratories.

The symposium chairs and editors would like to thank personally the authors and conference contributors who made these books possible. Special cordial thanks are also due to SPIE for supporting the symposium by undertaking the publication of two proceedings volumes. The Symposium Committee announces with pleasure that the next meeting on Laser Technology is scheduled to be held in Świnoujście in 2009.

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