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9 Closing Plenary Session, Conference Summary
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Introduction

The Optical Fibers and Their Applications 2018 conference is a forum of national science in this branch of Photonics. The conference usually hosts numerable guests from this geographic region, especially from Ukraine, Belarus and Kazakhstan. It is organized every year and a half by two major optical fiber technology and application centers located in Białystok at Białystok University of Technology, and in Lublin, at Maria Curie-Skłodowska University and Technical University of Lublin. The conference belongs to a bigger circle of national conferences on optoelectronics, optics, photonics, sensors and laser technology, which are under the general patronage of professional community organizations like the Polish Ceramic Society, Photonics Society of Poland, Polish Optoelectronics Committee of the Association of Polish Electrical Engineers, and the Section of Optoelectronics in the Committee of Electronics and Telecommunications, Polish Academy of Sciences.

The conferences in this series have been organized since 1976, in the Jabłonna Village Palace near Warsaw. The conference has also been held in Białowieża, by Białystok University of Technology Prof. Jan Dorosz, with emphasis on applications (especially non-telecom applications); and in Nałęczów, by UMCS Lublin Dr. W. Podkościelny and Dr. P. Mergo, and Lublin University of Technology Prof. W. Wójcik, with emphasis on technology and telecom applications. The first conference in Białowieża focused on non-telecommunication application of optical fibers and was held in 1982. During this period, the conferences in Lublin and in Nałęczów were more focused on technology and metrology of optical fibers supplementing the application and construction topics covered in Białowieża. The conference series on Optical Fibers and Their Applications has been organized in this country for 43 years. It was initiated by the late professors: J. Groszkowski, A. Smoliński, A. Waksmundzki, M. Pluta, B. Paszkowski, Z. Szpigler, J. Wójcik, K. Holejko, J. Rayss, and S. Sońta. The conferences always gather the whole national group of optical fiber and optoelectronics experts, a large number of students, and some international guests.

The 18th conference was held 20–23 November 2018, at the Energetyk Resort in Nałęczów, near Lublin. The accompanying School/Workshop on Optical Fiber Technology was held in Lublin at UMCS OFT Laboratory on 19 November. The conference was opened by Prof. W. Wójcik in the presence of the Dean of the Faculty of Chemistry of UMCS. The national expertise in optical fibers has gathered during the recent years around several big organizations, some of them with international roots: Section of Optoelectronics, Committee of Electronics and Telecommunications, Polish Academy of Sciences; Polish Committee of Optoelectronics, Association of Polish Electrical Engineers; Polish Chapter of SPIE. The latter organization registered in this country as a Society and was transformed in 2008, to the Photonics Society of Poland. These organizations cooperate with

SPIE—The International Society for Optics and Photonics, IEEE Poland Section and Photonics Chapter, Section of Optics by Polish Physical Society and Polish Ceramic Society.

During the conference opening ceremony, Prof. W.Wójcik reminded everyone of the history of OFTA Nałęczów Conferences. The national experts of guided wave, laser and semiconductor optoelectronics meeting in Krasnobród, Nałęczów, Białowieża, Lipowy Most, and Świnoujście (Laser Technology Symposium), managed to integrate their activities in the frame of numerable optoelectronics research programs carried out during these years. These were programs, national, central, departmental, priority, university and recently also European, realized with a number of international partners. Realization of these projects lead to numerable scientific and technical achievements, and also, they were underlying factors for establishing a number of photonic firms in this country and modernizing the teaching at technical universities.

The 2018 Nałęczów conference gathered around 120 participants. There were over 80 papers presented in oral and poster sessions. The biggest groups of papers originated from such university centers as: Silesian University of Technology in Gliwice, Białystok, Warsaw and Lublin, as well as UMCS in Lublin. The topical coverage of the Symposium was materials for optoelectronics, in particular, materials for optical fiber technology; fabrication of optical fibers; components and sub-assemblies for optoelectronics; metrology of optical fibers; metrology of optoelectronic components and devices; applications of optical fibers; and education in optoelectronics and photonics. There were a few plenary papers presented touching very current and "hot" problems in optoelectronics.

The technological sessions of the symposium presented the works from three main national centers where optical fibers are pulled. These are the Faculty of Chemistry, University of Maria Curie Skłodowska in Lublin, the Faculty of Electrical Engineering at Białystok University of Technology, and the Institute of Electronic Materials Technology in Warsaw. Numerable papers were presented from research firms and industry, including InPhoTech, Fibrain and Polish Centre for Photonics and Optical Fibres. A number of research centers in this country and internationally use these optical fibers for optical fiber sensors and photonic instrumentation devices. A large group of applications concerned microstructural photonic optical fibers filled or impregnated with liquid crystals, which are highly nonlinear optical substances, much more nonlinear than glasses. This group of papers originated from the laboratories at Warsaw and Wrocław Universities of Technology, but the fibers were manufactured at UMCS in Lublin and at ITME in Warsaw. There were also numerable application-oriented contributions from innovative photonics firms.

The Symposium organizers have provided very favorable participation conditions for Ph.D. and M.Sc. students, who participated in the Symposium in a large number. The majority of the papers were presented by young researchers, which supports the belief that this branch of technology is vivid and has promise for future

development. The Editors would like to thank all symposium participants and authors of submitted papers for making this symposium and the volume of proceedings a reality. The next symposium on Optical Fibers and Their Applications is scheduled for January/February 2020, in Białowieża.

Ryszard S. Romaniuk
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