

Proceedings of The Jabłoński Centennial Conference  
on Luminescence and Photophysics  
Toruń, Poland, July 23–27, 1998

*Editors of the Proceedings*

J.S. Kwiatkowski  
J. Prochorow

**WARSAW**

---

**POLISH ACADEMY OF SCIENCES  
INSTITUTE OF PHYSICS**

The Jabłoński Centennial Conference on Luminescence and Photophysics was organized by the Institute of Physics of Nicholas Copernicus University in Toruń, Poland, on July 23–27, 1998.

### International Programme Committee

Jacek Baranowski (Poland)	Michael Kasha (USA)
David Birch (United Kingdom)	Alfons Kawski (Poland)
Georges Boulon (France)	Józef S. Kwiatkowski (Poland)
Ludwig Brand (USA)	Joseph R. Lakowicz (USA)
Mostafa A. El-Sayed (USA)	Alexander Lempicki (USA)
Valerii L. Ermolayev (Russia)	Noboru Mataga (Japan)
Danuta Frąckowiak (Poland)	Saburo Nagakura (Japan)
Zbigniew R. Grabowski (Poland)	Jerzy Prochorow (Poland)
Alexander A. Kaplyanskii (Russia)	Wolfgang Rettig (Germany)
Joshua Jortner (Israel)	Erik W. Thulstrup (Denmark)

### Local Organizing Committee

Aleksander Balter	Tadeusz Marszałek
Wacław Bała	Hanna Męczyńska
Andrzej Bączynski	Hubert L. Oczkowski
Marek Grinberg	Józef Szudy
Czesław Koepke	Piotr Targowski ( <i>Secretary</i> )
Andrzej Kowalczyk	Andrzej Wojtowicz
Józef S. Kwiatkowski ( <i>Chairman</i> )	

### Conference sponsors

State Committee for Scientific Research	RBM — R. Braumann GmbH
Stefan Batory Foundation	(distributor of Edinburgh Instruments and Spectra Physics)
Foundation for Polish Science	Photon Technology International (PTI)
Polish Academy of Sciences	and Coherent Laser Group
— Department III	represented by Eurotek International
City of Toruń	KarStanS — economic consultants
Toruń Province Governor	Spectra Physics
Nicholas Copernicus University	ISS — Fluorescence and Analytical
LOT — Polish Airlines	Instrumentation
Spectronic Instruments, Inc.	Quantum Northwest
(the Jabłoński Award)	Instruments SA/Horiba

## Preface

The Jabłoński Centennial Conference on Luminescence and Photophysics was held on the campus of Nicholas Copernicus University in Toruń (Poland) from July 23rd to July 27th, 1998 to commemorate the 100th anniversary of the birth of Aleksander Jabłoński (1898–1980), one of the pioneers of molecular photophysics.

The Conference program covered a wide range of subjects emphasizing the physical processes associated with luminescence phenomena in liquids, vapors, and bulk solids. The topics included photoluminescence in liquids and solids, spectroscopy of excited states, excitation energy transfer, polarization of luminescence, ultrafast and coherent processes, photophysical effects, and biophysical applications.

The Conference was attended by 220 scientists and 33 accompanying persons from 28 countries. Its format included 13 Invited Plenary Lectures, 210 contributed papers presented in two Poster Sessions and three Panel Discussions initiated by the Keynote Lectures. The list of invited talks and chairmen of the panel discussions were suggested by the International Program Committee, with particular emphasis on newly emerging results and techniques.

On July 26th the important event took place, when the annual International Jabłoński Award was given to Professor Michael Kasha. The Award conceived in commemoration of Professor Aleksander Jabłoński, recognizes the outstanding fundamental accomplishments in fluorescence spectroscopy. On July 27th, Professor Michael Kasha delivered a special Award Lecture.

These Proceedings contain the full-length text of 10 invited lectures and one of the Keynote Lectures for the Panel Discussions. Some of the papers presented during the Poster Sessions will be published in a special issue of the *Journal of Fluorescence* and in several forthcoming issues of *Acta Physica Polonica A*.

We would like to thank many people who helped in organizing the Conference, especially the members of the International Programme Committee, Local Organizing Committee and the members of the staff of the Institute of Physics of Nicholas Copernicus University who were involved in the organization of the Conference. Special thanks are due to the invited speakers and chairmen of Panel Discussions for their unique contributions to the success of the meeting and for their cooperation in completing these Proceedings.

J.S. Kwiatkowski  
J. Prochorow