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To whom it may concern

Dipl.-Math. Lukasz Jankowski, born on December 23, 1975, was working from May 07, 2001 to November 30, 2004 as a doctoral candidate at the Laboratory S.13 "Optical Measurement and Testing Methods; Reference Materials" of our Division S.1 "Measurement and Testing Technology; Sensors". Before he started his PhD work, he also worked as guest scientist for a period of three months at the same laboratory.

His responsibility was to analyse the light propagation in non-aged and aged polymer optical fibres (POF), to develop a corresponding theoretical model, and to develop a simulation software tool based on the theoretical approach. Special focus was given to optical characteristics of non-ideal fibres, scattering effects and attenuation due to physical and chemical degradation. For the first time he succeeded in developing a comprehensive and excellent justified theoretical model for the light propagation in non-aged and aged POF. The model is based on an improved ray tracing approach, and was implemented by Mr. Jankowski as practically usable general simulation software tool for POF.

This research work was carried out in cooperation with the University of Potsdam. In October 2004 he finalized his doctoral thesis. The university accepted the thesis "Modelling and simulation of light propagation in non-aged and aged step-index polymer optical fibres" and successfully he passed the viva voce on October 29, 2004. Beside this research work, he was partly engaged in a research project financed by industry to conduct reliability and durability analyses of POF intended for use in harsh environment. Also he presented his research results at national and international conferences as well as in reports, publications and lectures.

Mr. Jankowski is a highly motivated scientist. He demonstrates excellent skills in the field of theoretical and applied mathematics. Based on his very good knowledge on physics and optics he performed all practical investigations single-minded and with great care. He is able to verify theoretical considerations by practical experiments and to extract the right conclusions from the results. He made remarkable contributions to the theoretical modelling and computer simulation of light propagation in POF. Various experts from all over the world also acknowledged his research results. His interaction with co-workers, supervisors and external partners was always cordial, businesslike, and co-operative. We strongly recommend his application for a postdoctoral or equivalent position to which he desires.

We thank him very much for the valuable work he did for us. For the future we wish him all the best and much success on his own professional and personal way.

Berlin, 2004-11-26

Yours sincerely

Dir. u. Prof. Dr.-Ing. Werner Daum
Head of Division
Division S.1 „Measurement and Testing Technology; Sensors“

