

## 1. PREFACE / Vorwort

It is indeed a great pleasure for me to publish the first Annual Report (it is for the last two years jointly) of our group including all the relevant data on the activities during 1997/1998.

There has been a long way since my first day at the University of Linz, 1<sup>st</sup> April 1996. Looking to the work established in less than three years this time span seems to me much longer. Due to the fact that an entirely new research direction has been established in our group and lifted to the international frontline research level within this incredibly short time scale, I, myself, am surprised and satisfied. We have started with a full scale construction within the lab space in 1996, and the reconstruction of the laboratory rooms, basic furnishing and special installations were more or less finished at the end of 1996. For this very efficient work I am indebted great thanks to the Abteilung für Gebäude und Technik headed by Ing. Heribert Blach.

The construction of the experimental labs started simultaneously for the optical labs (Laser labs), Electron Spin Resonance (ESR) labs and Fourier Transform Infrared (FTIR) labs. It was quite an achievement of Dr. Helmut Neugebauer and Dr. Christoph Brabec to start up the scientific engines in such an efficient way that we could already produce beautiful experimental results even at the end of 1996! For this and for continuous reasons I may gladly name these persons as the backbones of our labs. The full scale experimental systems were established such as *in situ* spectroelectrochemical FTIR, photoinduced FTIR, photoinduced ESR (LESR), as well as a very crude solar cell designing and fabrication laboratory at the dawn of 1997. In this phase especially, but also continuously later on, the immense help and sophisticated skills of my technical mechanics Manfred Lipp was essential and highly acknowledged. In this early construction phase, I have to mention decisive contributions of Dr. Shankaran Srinivasan for FTIR and Dr. Vladimir Dyakonov for ESR, ODMR and LESR.

In the following we have come quite far. The number of our co-workers, financial volume of our projects, number of scientific publications have been explosively increasing. Furthermore, local community accepted our science in a (for me) surprisingly enthusiastic response which has been documented by the numerous Newspaper, TV (ORF) as well as Radio Broadcasting contributions on our work. The Netherlands' Agency for Energy and Environment (NOVEM) supported and continues to support our research here in Linz, which reflects a true European spirit. This fact has to be acknowledged especially since they were our first funding agency. Propelled with the vision of Doz. Dr. Glötzl and Dr. Heinisch, local industry in Linz has formed a consortium (Quantum Solar Energy Linz, GmbH) just to support, develop and utilize our scientific work which has resulted in establishment of a "Christian Doppler Laboratory for Plastic Solar Cells", and a large European Commission grant together with Italy (Dr. Maggini, Prof. Prato), Spain (Prof. Martin), Israel (Prof. Faiman, Prof. Ehrenfreund), Holland (Dr. Janssen, Dr. Hummelen), Sweden (Doc. Inganäs, Dr. Andersson). Many visitors from throughout the world have joined our group for research which also reflects the interest in and the quality of our research at the University of Linz. All of them contributed significantly to the development of our own science here, and are therefore gratefully acknowledged. I want to acknowledge the Stabstelle für Partnerschaften und Kooperationen der Zentralen Verwaltung of University of Linz (Dr. Zakel) for their financial contribution which made this largely possible.

All our co-workers listed in this Report are acknowledged for their contributions in science and in person to our group. Since human understanding and international harmony in a group is not a triviality, I am very pleased and strongly encourage these two facts which we have in our group.

Last but not least these achievements as well as the report itself could not be possible without the responsible work of my secretary Gabriele Prager. Her precision and organizational skills are highly appreciated by all our co-workers, visitors and by myself.

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Linz, January 1999