I. PREFACE

Vorwort

In the year of 2014 we have successfully completed the new laboratory for magneto optical experiments at cryogenic temperatures. This setup will bring our focus to more physical characterization of the organic semiconductor materials.

At the same time there is also a "shift" of our research focus to more and more biological and bio-organic systems for optoelectronics. This development has been started by the very successful introduction of a new organic semiconductor family of materials: the hydrogen bonded indigoids.
These materials show extraordinary stability in ambient air as well as in water, which opens up the long awaiting applications in bio-medical as well as biosensor research. Organic semiconductors have been handicapped by their instability for many applications and these new materials which we have introduced during the last 2-3 years successfully, show indeed stable operation of devices. This will be a key technological advancement enabling the biointegrated applications in near future. A new approach to Bio-Organic-Cybernetics !
On the other hand, the use of biological catalysts in form of enzymes as well as living bacteria, opens up a whole new field of "Bio-Electro-Chemistry for CO2 Recycling". The impact of this new area will be judged in near future by their success in practical implementations. The bio-catalysis works at room temperature and ambient mild conditions with a perfect selectivity. This is indeed very attractive for many applications. Our interest focus is using such bio-catalysis in CO2 recycling into artificial fuels and chemical energy storage.

Looking to the high impact of our publications, I am convinced that our Institute will contribute furthermore successfully to the science and technology of organic- and bio-organic optoelectronic devices.

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