

Editor's preface

This book is the first in the Forum Organic Electronics Science Series, which is intended to highlight and promote selected scientific achievements within the field of organic and printed electronics.

Forum Organic Electronics is a distinguished leading-edge cluster centered in the Rhine-Neckar Metropolitan Region and combines the scientific excellence and economic strength of its academic and corporate partners to grow the seeds of a new technology into a prosperous plastic semiconductors industry in the German southwest. The partners' network includes 3 DAX-noted and 7 internationally involved enterprises, 6 middle-sized businesses and 9 universities respectively research institutions. These partners operate at complementary positions along the value chain which ranges from the design and synthesis of novel materials, the research on next-generation devices, the development of inexpensive processing technology and production systems -especially printing technology- and finally the marketing of breakthrough applications and services.

As the vital strategy tool of the cluster, the leading partners have jointly founded InnovationLab GmbH (iL), an application-oriented research and transfer platform of business and science with the common goal of driving innovation.

We have selected the dissertation thesis of Dr.-Ing. Sami Hamwi for publication as the first edition of the Forum Organic Electronics Science Series, as it is a representative piece of science generated within the cluster network. Further, we identified Dr. Hamwi as a talented researcher at an early career stage whose research work is inspired by genuine curiosity, fueled by strong dedication and carried by his intellectual power and personal integrity. These values are reflected in the excellence of his research and serve as key values to be pursued by other young researchers, which will follow.

In this book, Dr. Hamwi presents a conclusive study on the various effects of transition metal oxides when applied to organic electronic devices. He starts with describing the physical properties of the studied metal oxides and the interaction with or in organic thin films. Finally, he succeeded in transferring ideas generated from fundamental research to new device concepts, such as stacked organic light emitting diodes which can be used in next-generation lighting applications.

We would like to thank the author for his important contribution and we are confident that this work will spur new and interesting ideas for the future.

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