

Dielectric Materials and Applications

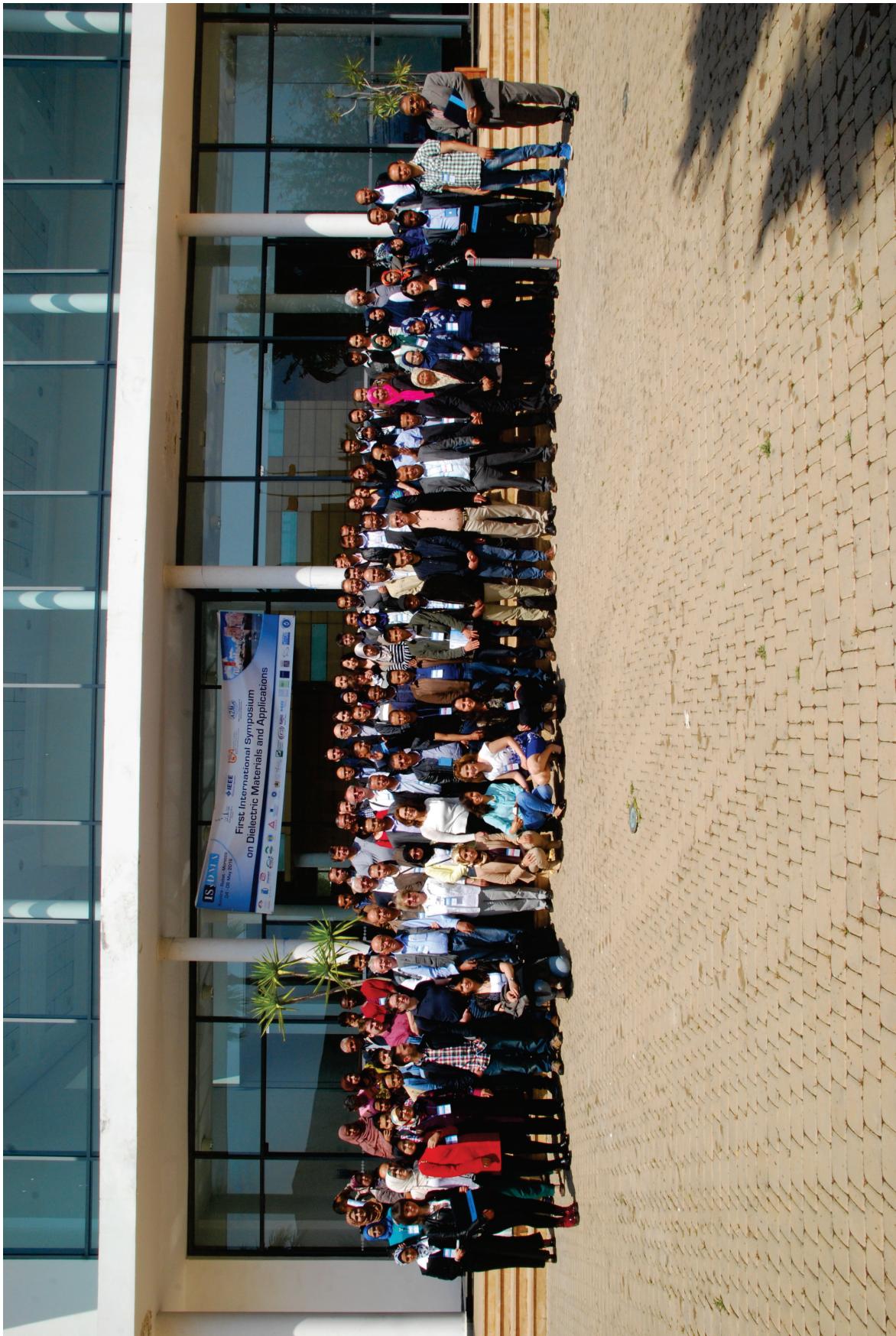
ISyDMA'2016

Edited by

ACHOUR Mohammed Essaid
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MESSOUSSI Rochdi
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The First International Symposium on Dielectric Materials and Applications (ISyDMA'2016) was held in Kenitra (4 May, 2016) and in Rabat (May 5-6, 2016), Morocco. ISyDMA'2016 provided an international forum for reporting the most recent developments in Advanced Dielectric Materials and Applications.

The goal of this collection of peer reviewed papers is to provide researchers and scientists from all over the world with recent developments in dielectric materials and their innovative applications. The book will be useful for materials scientists, physicists, chemists, biologists, and electrical engineers engaged in fundamental and applied research or technical investigations of such materials.



Dielectric Materials and Applications

ISyDMA'2016

Edited by

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Preface

The First International Symposium on Dielectric Materials and Applications (ISyDMA'2016) was held in Morocco, Kenitra city and Rabat (the capital of Morocco). The opening ceremony and first day of the conference took place May 4th, 2016 at the Faculty of Sciences, Ibn Tofail University, Kenitra, Morocco. The ISyDMA'2016 Symposium with keynotes & tutorials took place May 5-6, 2016, at the Mohammed VI Conference Centre, Foundation for Promoting Social Actions in Education and Training, in Rabat. ISyDMA'2016 was organized by the Moroccan Association of Advanced Materials (A2MA) in collaboration with the Laboratory Systems of Telecommunication & Decision Engineering (LASTID) of the Sciences Faculty of Kenitra, Morocco.

The aim of the ISyDMA'2016 Symposium was to provide an international forum for the discussion of current research on electrical insulation, dielectric phenomena and related topics. The conference provides an opportunity for specialists from around the world to meet and to discuss ongoing research during these three days.

The goal of the ISyDMA'2016 is to provide a platform for researchers, scientists from all over the world to exchange ideas and to hold wide ranging discussions on recent developments in dielectric materials and their innovative applications. Materials scientists, physicists, chemists, biologists, and electrical engineers engaged in fundamental and applied research or technical investigations on such materials were invited to attend the conference.

The scope of the ISyDMA'2016 meeting included the following topics:

- Dielectric properties, polarization phenomena and applications - Physics of space charge in non-conductive materials - Polymers, composites, ceramics, glasses - Biodielectrics - Nanodielectrics, metamaterials, piezoelectric, pyroelectric and ferroelectric materials.
- Dielectrics for superconducting applications - Industrial and biomedical applications - Dielectric materials for electronics and photonics - New diagnostic applications for dielectrics - New and functional dielectrics for electrical systems - Electrical conduction and breakdown in dielectrics - Surface and interfacial phenomena.

- Electrical insulation in high voltage power equipment and cables - Ageing, partial discharges and life expectancy of HV insulation - Space charge and its effects in dielectrics. Gaseous electrical breakdown and discharges.
- Impedance spectroscopy applications to electrochemical and dielectric phenomena
- High voltage insulation design using computer; based analysis - Partial discharges in insulation: detection methods and impact on ageing - Monitoring and diagnostic methods for electrical insulation degradation - Measurement techniques - Modeling and theory

We would like to extend our sincere thanks to all the sponsors for their generous assistance. We are also very grateful to the organizing committee for their efforts without which this event would not have taken place. So, it is a personal privilege to offer to the International Community some of the results of the Symposium and we acknowledge the President at Materials Research Forum LLC Thomas Wohlbier and his staff for the good job made to extend the fruitful three days of the ISyDMA'2016 Symposium to readers of this edition.

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