Green Energy and Technology

Jia-Wei Zhang · Wei-Hang Deng · Chatchai Putson · Fouad Belhora · Abdelowahed Hajjaji

Insulation Aging Phenomenon in Green Energy Systems

Photovoltaic and Electrical Vehicle Perspectives



Green Energy and Technology

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Photovoltaic and Electrical Vehicle Perspectives



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Preface

The construction of green energy systems has increased in the last decades because of the need for sustainable development worldwide. With the development of green energy worldwide, the importance of solar, wind, and tidal energy is increasing. Meanwhile, electrified transportation will also become the dominant pathway for the sustainable development in the future. However, aging phenomenon of insulating materials used in green energy systems is unavoidable, especially in photovoltaic systems installed in highlands, seaside, space environment and used in the PWM drive motors of electric vehicles. Thus, aging has a significant impact on the safety and stability of green energy systems. Therefore, it is necessary to analyze the aging phenomenon of insulating materials in photovoltaic and electric vehicles, which are included in the new energy system. This book establishes a fundamental framework for this topic and provides important basic data and reference for the research of insulation materials used in photovoltaic and electric vehicles. The book is intended for researchers, undergraduate and graduate students who are interested in aging phenomenon in green energy system. This book can be also used for teaching, scientific research, and popularization of science.

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