<<固体中的介电弛豫>>

图书基本信息

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前言

Fifty years ago, I was sitting in a class at Jiaotong University inShanghai, China taking a course called "DIELECTRICPHYSICS" lectured by the late Professor Chen Jidan. I was oneof the thirty students sitting in his class taking the course. Thiswas the first time DIELECTRIC study was introduced toChinese Universities. Since then, dielectric study became one ofthe major concerns of the science and technology community ofChina in developing its electrical and electronic engineering.Fifty years past, thousands of students, graduate students,professors, scientists and engineers have been engaged in thestudies and applications of dielectrics in this country. In the pastfifty years, the Xi'an Jiaotong University, Shanghai JiaotongUniversity, Electronic Science and Technological University,Shandong University, Zhongshan University, SichuanUniversity, Nanjing University, Tongji University and theShanghai Institute of Ceramics, the Beijing Institute of Physicsof the Chinese Academy of Sciences were heavily involved indielectric studies and gave their various contributions to thedevelopment of dielectric study in China. Now, China isprobably one of the most important countries in dielectric studiesamong the list of the ex Soviet Union and the United Kingdom.Late Professor Chen was the pioneer and founder ofDIELECTRIC studies in China. The staidness, sureness andsolemnness of his academic attitude are the invaluable treasureof the Chinese dielectric community. I would like to take thechance of writing this preface to pay my sincere respect to thelate Professor Chen.

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内容概要

本书是研究固体中介电弛豫现象的专著，被电介质领域的许多研究者奉为经典。
作者提出在所有固体介质中存在普适的分数指数弛豫定律，其观点在学术界经历了从不被理解到广泛接受的曲折过程。
书中介绍了介质极化的基础知识和介电函数的表述方法，在此基础上讨论了几种理想化模型的的动态响应特征，结合频域响应和时域响应的多种实验现象，总结提出了介电弛豫的多体普适模型。
　全书行文流畅、简明扼要，可作为物理、电子、材料、电气等相关专业的教师、研究生和科研人员的参考书。
精读此书有助于深入、全面地理解电介质、半导体、电池及其他电子元器件测量中的实验结果。

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作者简介

A．K．琼克，(A．K．Jonscher，1922—2005)，生于波兰华沙，1949年在伦敦大学玛丽皇后学院以一级荣誉学士学位毕业，并在该校Harry Tropper教授的指导下于1952年获得博士学位，1951年起在GEC研究实验室工作，从事半导体器件物理原理方面的研究工作，1962年以Reader身份加入伦敦大学切尔西学院，1965年成为固态电子学教授，1987年成为伦敦大学皇家霍洛威与贝德福德斯学完荣誉教授，1990年受邀担纲IEEE“普适介电响应”杰出怀特海荣誉讲席。
琼克教授在介电弛豫研究方面具有很深的造诣，他于1983年和1996年分别出版的学术专著《固体中的介电弛豫》和《普适弛豫定律》，在国际学术界享有盛誉。

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