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2.11.2 Incorrect Interpretations of RMS Data 2.11.3 Definitive Studies Using Pitch (Dumont et al., 2002); 2.11.4 Interpretations of RMS Data; 2.12 Quantitative Reflectance Microscopy and Carbon Structure; 2.13 What is Carbon Structure? Concluding Comments; 2.14 Applications Related to Porous and Chemical Structure; 2.14.1 The uses of Porous Carbons; 2.14.2 Take-up of Lithium into Carbons for Batteries; References; 3 Porosity in Carbons: Modeling; 3.1 Introduction; 3.2 Model Requirements; 3.3 Why Modeling?; 3.4 Models to be Considered; 3.4.1 The Drill-hole Models; 3.4.2 The Branched-tree Model
3.4.3 The Norit Model 3.4.4 Carbon from Benzene Hexachloride, Gibson et al. (1946) and Riley (1947); 3.4.5 Potato-chip Models; 3.4.6 Models of Kaneko et al. (1992a, b); 3.4.7 Model of Ruike et al. (1994); 3.4.8 Falling Card Model of Dahn et al. (1997); 3.4.9 Glassy Carbon Model of Yoshida et al. (1991); 3.4.10 Model of Porous Microtexture of a Carbonaceous Particle of Oberlin et al. (1980, 1999) and Oberlin (1989); 3.4.11 The Model of Virtual Porous Solids of Biggs and Agarwal (1992, 1994) and Biggs et al. (2004a, b); 3.4.12 Model of Porous Carbon of Segarra and Glandt (1994)
3.4.13 Tight-binding Model of Wang et al. (1996)

Sommario/riassunto

Recent years have seen an expansion in speciality uses of activated carbons including medicine, filtration, and the purification of liquids and gaseous media. Much of current research and information surrounding the nature and use of activated carbon is scattered throughout various literature, which has created the need for an up-to-date comprehensive and integrated review reference. In this book, special attention is paid to porosities in all forms of carbon, and to the modern-day materials which use activated carbons - including fibres, clothes, felts and monoliths. In addition, the use of a