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; 6.1. The CeO2-ZrO2 Phase Diagram; 6.2. Effects of High Temperature Reducing and Oxidising Treatments
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; 6.4. Effects of Addition of Al2O3 to CeO2-ZrO2 Mixed Oxides
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8. Computer Simulation Studies of Ceria-based Oxides

Sommario/riassunto

The use of CeO2-based materials in catalysis has attracted considerable attention in recent years, particularly in applications like environmental catalysis, where ceria has shown great potential. This book critically reviews the most recent advances in the field, with the focus on both fundamental and applied issues. The first few chapters cover structural and chemical properties of ceria and related materials, i.e. phase stability, reduction behaviour, synthesis, interaction with probe molecules (CO, O2, NO), and metal-support interaction - all presented from the viewpoint of catalytic appl