CLIMATE OF THE 21st CENTURY - Changes and Risks

Scenarios of Anthropogenic Climate Changes - A continuing challenge for sciences (Gräßl)

1 CLIMATE AND ITS VARIABILITY

1.1 Climate and Climate System (Hupfer)
1.2 The Significance of the General Circulation in Atmosphere and the Ocean for Climate (Steinrücke)
1.3 Effect of Earth Orbital and Solar variability on Climate (Mende & Stellmacher)
1.4 The Volcanic Impact on Global Atmosphere and Climate (Sachs & Graf)
1.5 The Carbon Cycle within the Climate System (Würth, Häger & Kohlmaier)
1.6 El Niño/Southern-Oszillation-Phenomenon (Latif & Endlicher)
1.7 The History of Climate from the Early Stages of the Holocene (Ehlers)
1.8 Causes of Climate Changes in the Quaternary (Wefer)
1.9 The Ice of the Earth (Herterich)
1.10 Climate History of the last 40,000 Years in the Old World (Frenzel)
1.11 Influence of Climate Change on the Upper Timber Line in the Alps since the Last Glaciation (Pott, Bauerochse & Katenhusen)
1.12 Dendroclimatology of the last 12,000 Years (Frenzel)
1.13 Influence of the Climate on the History of Humankind (Lozán)
1.14 Responses of Lakes to Climate Variability (Lozán, Merkt & Pachur)

2 ANTHROPOGENIC INFLUENCE ON THE CLIMATE

2.1 Observed Climate Change within the 19th and 20th Century: Danger Ahead? (Schönwiese & Hupfer)
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3.9 Changes in North Atlantic (Latif & Meincke)
3.10 Implications of Climate Change on Sea Level (Sterr)
3.11 The Response of Polar Sea Ice to Climate Variability and Change (Eiken & Lemke)
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3.13 Changes of the Polar Ice Sheets (Huybrechts)
3.14 Climate Change and its Consequences for Permafrost (Siegert & Hubberten)
3.15 Desertification (Pilardieux & Schulz-Baldes)
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