

Thermochronology - the use of temperature-sensitive radiometric dating methods to reconstruct the thermal histories of rocks - has proved to be an important means of constraining a wide variety of geological processes. Fission track and (U–Th)/He analyses of apatites, zircons and titanites are the best-established and most sensitive methods for reconstructing such histories in the uppermost kilometres of the crust, over time scales of millions to hundreds of millions of years.

The papers published in this volume are divided into two sections. The first section on ‘New approaches in thermochronology’, presents the most recent advances of existing thermochronological methods and demonstrates the progress in the development of alternative thermochronometers and modelling techniques.

The second section, ‘Applied thermochronology’, comprises original papers about denudation, long-term landscape evolution and detrital sources from the European Alps, northwestern Spain, the Ardennes, the Bohemian Massif, Fennoscandia and Corsica. It also includes case studies from the Siberian Altai, Mozambique, South Africa and Dronning Maud Land (East Antarctica) and reports an ancient thermal anomaly within a regional fault in Japan.

