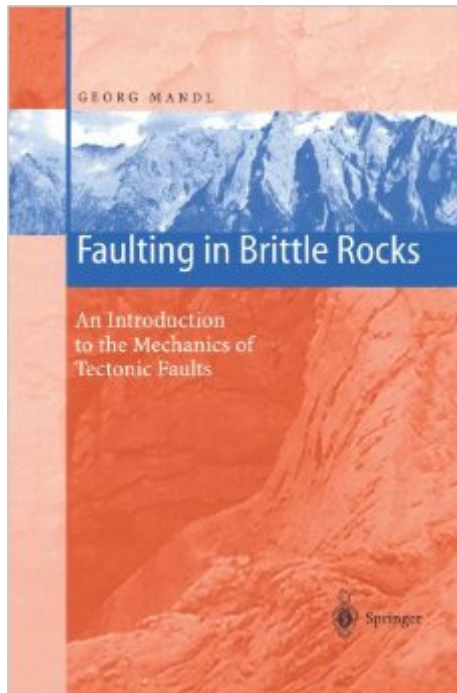


The book was found

# Faulting In Brittle Rocks: An Introduction To The Mechanics Of Tectonic Faults



## Synopsis

This book provides an introduction into the mechanics of faulting in the brittle crust of the Earth. It developed from my annual two-semester course on tectono-mechanics for graduate students of engineering geology and of rock engineering at the Technical University of Graz (Austria). In this course, it is not my task to present a broad exposition and geometrical description of geological structures, but rather to focus on the mechanical processes that produce the structures. Although this was also the aim of my former book "Mechanics of Tectonic Faulting - Models and Basic Concepts" (1988, Elsevier), henceforth referred to as MTF, the present book is different in organisation and content, in order to meet the requirements of the courses and to include more recent developments. Instead of following the traditional subdivision into extensional, compressional and strike-slip faulting, the presentation focuses on mechanical aspects of tectonic faulting that are common to various, or even all types of tectonic faults in the brittle regime. In this way, geometrically disparate or dissimilar fault structures may be revealed as closely related by the underlying mechanical process, and complex structures may be better understood. It may be useful to indicate how the chapters in the book are organised. The first three chapters are an introduction to rock mechanics, tailored to applications in geology. It also presents the extremely useful graphical method of Mohr's stress circle, which is freely used throughout the book to keep the mathematics to an absolute minimum.

## Book Information

Paperback: 434 pages

Publisher: Springer; Softcover reprint of the original 1st ed. 2000 edition (December 1, 2010)

Language: English

ISBN-10: 3642085709

ISBN-13: 978-3642085703

Product Dimensions: 6.1 x 1.1 x 9.2 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #4,415,025 in Books (See Top 100 in Books) #81 in Books > Science & Math > Earth Sciences > Geology > Structural #948 in Books > Science & Math > Earth Sciences > Mineralogy #9382 in Books > Textbooks > Science & Mathematics > Earth Sciences

[Download to continue reading...](#)

Faulting in Brittle Rocks: An Introduction to the Mechanics of Tectonic Faults Fault and Joint

Development: In Brittle and Semi-Brittle Rock The Mechanics of Earthquakes and Faulting Rocks and Minerals - A Guide to Minerals, Gems, and Rocks (Golden Nature Guides) Fire, Faults & Floods (Northwest Naturalist Book) Fracture of Brittle Solids (Cambridge Solid State Science Series) The Fracture of Brittle Materials: Testing and Analysis Structural Geology: The Mechanics of Deforming Metamorphic Rocks Tectonic Geomorphology of Mountains: A New Approach to Paleoseismology Mineral Deposits and Global Tectonic Settings (Academic Press Geology Series) Tectonic Geomorphology Basins of the Rio Grande Rift: Structure, Stratigraphy, and Tectonic Setting (Special Paper (Geological Society of America)) Introduction to the Numerical Modeling of Groundwater and Geothermal Systems: Fundamentals of Mass, Energy and Solute Transport in Poroelastic Rocks (Multiphysics Modeling) Kansas Geology: An Introduction of Landscapes, Rocks, Minerals, and Fossils Second Edition, Revised Robotics: The Beginner's Guide to Robotic Building, Technology, Mechanics, and Processes (Robotics, Mechanics, Technology, Robotic Building, Science) Soil Mechanics in Highway Engineering (Series on Rock and Soil Mechanics) Reinforced Concrete: Mechanics and Design (4th Edition) (Civil Engineering and Engineering Mechanics) Mechanics II: Mechanics of Materials + Computational Fluid Mechanics and Heat Transfer, Third Edition (Series in Computational and Physical Processes in Mechanics and Thermal Sciences) Gems : A Lively Guide for the Casual Collector (Rocks, Minerals and Gemstones)

[Dmca](#)