

1. Record Nr.	UNINA9910787845003321
Titolo	Fractured rock hydrogeology // editor, John M. Sharp, Jr., The University of Texas, Austin, USA
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , [2014] ©2014
ISBN	0-429-22753-1 1-138-00159-7
Edizione	[First edition.]
Descrizione fisica	1 online resource (403 p.)
Collana	Selected papers on hydrogeology ; ; 20
Disciplina	553.7/9
Soggetti	Hydrogeology Rocks - Fracture
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Contents; Dedication; Foreword; About the editor; List of contributors; 1. IAH Commission on Hardrock Hydrogeology (HyRoC): Past and present activities, future possibilities; 2. The conceptual model of weathered hard rock aquifers and its practical applications; 3. Similarities in groundwater occurrence in weathered and fractured crystalline basement aquifers in the Channel Islands and in Zimbabwe; 4. Outcrop groundwater prospecting, drilling and well construction in hard rocks in semi-arid regions 5. Sustainable yield of fractured rock aquifers: The case of crystalline rocks of Serre Massif (Calabria, Southern Italy)6. From geological complexity to hydrogeological understanding using an integrated 3D conceptual modelling approach - insights from the Cotswolds, UK; 7. Characterising the spatial distribution of transmissivity in the mountainous region: Results from watersheds in central Taiwan; 8. Spring discharge and groundwater flow systems in sedimentary and ophiolitic hard rock aquifers: Experiences from Northern Apennines (Italy) 9. Fracture transmissivity estimation using natural gradient flow measurements in sparsely fractured rock10. Prediction of fracture roughness and other hydraulic properties: Is upscaling possible?; 11. Scale dependent hydraulic investigations of faulted crystalline rocks -

examples from the Eastern Alps, Austria; 12. Methodology to generate orthogonal fractures from a discrete, complex, and irregular fracture zone network; 13. Remote sensing, geophysical methods and field measurements to characterise faults, fractures and other discontinuities, Barada Spring catchment, Syria
14. Using heat flow and radiocarbon ages to estimate the extent of recharge area of thermal springs in granitoid rock: Example from Southern Idaho Batholith, USA
15. Tunnel inflow in granite - fitting the field observations with hybrid model of discrete fractures and continuum; 16. Uranium distribution in groundwater from fractured crystalline aquifers in Norway; 17. Technical quality of Norwegian wells in crystalline bedrock related to groundwater vulnerability
18. Exploration and characterisation of deep fractured rock aquifers for new groundwater development, an example from New Mexico, USA
19. Use of several different methods for characterising a fractured rock aquifer, case study Kempfield, New South Wales, Australia; 20. Main features governing groundwater flow in a fractured Basalt Aquifer System of South-Eastern Australia; Colour plates; Series IAH-selected papers

Sommario/riassunto

Fractured rocks extend over much of the world, cropping out in shields, massifs, and the cores of major mountain ranges. They also form the basement below younger sedimentary rocks; at depth; they represent a continuous environment of extended and deep regional groundwater flow. Understanding of groundwater flow and solute transport in fractured rocks is vital for analysis of water resources, water quality and environmental protection, geotechnical and engineering projects, and geothermal energy production. Book chapters include theoretical and practical analyses using numerical mode
