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| Autore | Mavko Gary <1949-> |
| Titolo | The rock physics handbook : tools for seismic analysis of porous media / / Gary Mavko, Tapan Mukerji, Jack Dvorkin [[electronic resource]] |
| Pubbl/distr/stampa | Cambridge : , : Cambridge University Press, , 2009 |
| ISBN | 0-511-73887-0<br>1-107-19656-6<br>0-511-65062-0<br>0-511-53903-7<br>0-511-53820-0<br>0-511-62675-4<br>0-511-53987-8 |
| Edizione | [Second edition.] |
| Descrizione fisica | 1 online resource (xii, 511 pages) : digital, PDF file(s) |
| Disciplina | 552/.06 |
| Soggetti | Rocks<br>Geophysics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Title from publisher's bibliographic system (viewed on 05 Oct 2015). |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Basic tools -- Elasticity and Hooke's law -- Seismic wave propagation -- Effective elastic media : bounds and mixing laws -- Granular media -- Fluid effects on wave propagation -- Empirical relations -- Flow and diffusion -- Electrical properties -- Appendices. |
| Sommario/riassunto | The Rock Physics Handbook addresses the relationships between geophysical observations and the underlying physical properties of rocks. It distills a vast quantity of background theory and laboratory results into a series of concise chapters that provide practical solutions to problems in geophysical data interpretation. This expanded second edition presents major new chapters on statistical rock physics and velocity-porosity-clay models for clastic sediments. Other new and expanded topics include anisotropic seismic signatures, borehole waves, models for fractured media, poroelastic models, and attenuation models. This new edition also provides an enhanced set of appendices with key empirical results, data tables, and an atlas of reservoir rock properties - extended to include carbonates, clays, gas hydrates, and |

heavy oils. Supported by a website hosting MATLAB routines for implementing the various rock physics formulas, this book is a vital resource for advanced students and university faculty, as well as petroleum industry geophysicists and engineers.