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| | Soggetti | Acoustics |
| | | Geophysics |
| | | Acoustical engineering |
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| | Nota di bibliografia | Includes bibliographical references and index. |
| | Nota di contenuto | 1 Introduction -- 2 Sediment Classification -- 3 Basic Theory -- 4 Water-Saturated Sandy Sediments -- Fluid -- 5 Correction for a Wide Range of Sediments -- 6 A Demonstration -- Appendix A -- References -- Index. |
| | Sommario/riassunto | This book presents a concise description of the acoustics of ocean sediment acoustics, including the latest developments that address the discrepancies between theoretical models and experimental measurements. This work should be of interest to ocean acoustic engineers and physicists, as well as graduate students and course instructors. The seabed is neither a liquid nor a solid, but a fluid saturated porous material that obeys the wave equations of a poroelastic medium, which are significantly more complicated than the equations of either a liquid or a solid. This volume presents a model of seabed acoustics with input parameters that allow the model to cover a |

wide range of sediment types. The author includes example reflection and transmission curves which may be used as typical for a range of sediment types. The contents of this book will allow the reader to understand the physical processes involved in the reflection, propagation, and attenuation of sound and shear waves in ocean sediments and to model the acoustic properties for a wide range of applications.