

The Self Potential Method

In hard rock terrain, shallow water wells generally have a poor to moderate yield. Sinking wells deeply to tap yielding fracture zones often backfires, because the borehole may miss the saturated fracture zones at depths. A wrong approach to groundwater exploration in hard rock has therefore often led to unnecessary recurring expenditures and waste of time, something that could have been avoided by a systematic and proper geophysical approach. The combination of various geophysical techniques with environmental conditions is essential to constrain the interpretation and reduce uncertainties in this respect. This book presents the approach to groundwater exploration in hard rocks, various geophysical techniques and combinations to be used, interpretation of data with case studies and drilling results and the preparation of different utility maps.

The Self-Potential Method Theory and Applications in Environmental GeosciencesCambridge University Press

A groundbreaking book about personal growth that presents a uniquely effective set of four tools that bring about dynamic change in the present and impart a greater understanding of the depth and complexity of the human condition over the longterm. The Tools addresses the most common complaint patients have about psychotherapy: the interminable wait for change to begin. Barry Michels, an LA-based therapist, was frustrated by his inability to bring his patients faster relief from the effects that plagued them. He found a mentor in Phil Stutz, a psychiatrist who years before devised a methodology that arose from a similar disenchantment. The traditional therapeutic model sets its sights on the past, but Stutz and Michels employ an arsenal of tools—exercises that access the power of the unconscious and effectively meet the most persistent problems people face—and the results are electrifying. Stutz and Michels are much sought-after—a recent profile in The New Yorker touted them as an “open secret” in Hollywood—and treat a high-powered and creative clientele. Their first work, The Tools transcends the typical self-help genre because of its paradigm-changing material, the credibility of its authors, and the instant appeal and empowerment of its message.

A comprehensive text on resistivity and induced polarization covering theory and practice for the near-surface Earth supported by modelling software. Authentic Happiness

A Guide to Prospecting by the Self-potential Method

Proceedings of the 1st Springer Conference of the Arabian Journal of Geosciences (CAJG-1), Tunisia 2018

Geotechnical Applications of the Self-Potential Method. Report 3. Development of Self-Potential Interpretation Techniques for Seepage Detection

Activate Your Full Human Potential

The self-potential Method enables non-invasive assessment and imaging of disturbances in electrical currents of conductive subsurface materials. It has an increasing number of applications, from mapping fluid flow in the subsurface of the Earth to detecting preferential flow paths in earth dams and embankments. This book provides the first full overview of the fundamental concepts of this method and its applications in the field. It discusses a historical perspective, laboratory investigations undertaken, the inverse problem and seismoelectric coupling, and concludes with the application of the self-potential method to geohazards, water resources and hydrothermal systems. Chapter exercises, online datasets and analytical software enable the reader to put the theory into practice. This book is a key reference for academic researchers and professionals working in the areas of geophysics, environmental science, hydrology and geotechnical engineering. It will also be valuable reading for related graduate courses.

This advanced undergraduate textbook comprehensively describes principal geophysical surveying techniques for environmental and engineering problems. This is the revised and updated version of an established textbook. It describes the physical methods involved in exploration for hydrocarbons and minerals. These tools include gravity, magnetic, seismic, electrical, electromagnetic, and radioactivity studies.

The use of self potential in the detection of subsurface flow patterns in and around sinkholes. Report 1

Environmental and Engineering Geophysics

Advances in Geophysical Monitoring and Characterization

The Revolutionary “Executive Skills” Approach to Helping Kids Reach Their Potential

Levees and Dams

Resistivity and Induced Polarization

An Introduction to Applied and Environmental Geophysics, 2nd Edition, describes the rapidly developing field of near-surface geophysics. The book covers a range of applications including mineral, hydrocarbon and groundwater exploration, and emphasises the use of geophysics in civil engineering and in environmental investigations. Following on from the international popularity of the first edition, this major revised edition includes new case studies, and descriptions of geophysical techniques not previously included in such textbooks. The level of mathematics and physics is deliberately kept to a minimum but is described qualitatively within the text. Relevant mathematical expressions are separated into boxes to supplement the text. The book is profusely illustrated with many figures, photographs and line drawings, many never previously published. Key source literature is provided in an extensive reference section; a list of web addresses is also given in an appendix as a valuable additional resource. Covers new techniques such as Magnetic Resonance Sounding, Controlled-Source EM, shear-wave seismic refraction, and airborne gravity and EM techniques Now includes radioactivity surveying and more discussions of down-hole geophysical methods; hydrographic and Sub-Bottom Profiling surveying; and UnExploded Ordnance detection Expanded to include more forensic, archaeological, glaciological, agricultural and bio-geophysical applications Includes more information on physio-chemical properties of geological, engineering and environmental materials Takes a fully global approach Companion website with additional resources available at www.wiley.com/go/reynolds/introduction2e Accessible core textbook for undergraduates as well as an ideal reference for industry professionals The second edition is ideal for students wanting a broad introduction to the subject and is also designed for practising civil and geotechnical engineers, geologists, archaeologists and environmental scientists who need an overview of modern geophysical methods relevant to their discipline. While the first edition was the first textbook to provide such a comprehensive coverage of environmental geophysics, the second edition is even more far ranging in terms of techniques, applications and case histories.

Just a few meters below the Earth's surface lie features of great importance, from geological faults which can produce devastating earthquakes, to lost archaeological treasures! This refreshing, up-to-date book explores the foundations of interpretation theory and the latest developments in near-surface techniques, used to complement traditional geophysical methods for deep-exploration targets. Clear but rigorous, the book explains theory and practice in simple physical terms, supported by intermediate-level mathematics. Techniques covered include magnetics, resistivity, seismic reflection and refraction, surface waves, induced polarization, self-potential, electromagnetic induction, ground-penetrating radar, magnetic resonance, interferometry, seismoelectric and more. Sections on data analysis and inverse theory are provided and chapters are illustrated by case studies, giving students and professionals the tools to plan, conduct and analyze a near-surface geophysical survey. This is an important textbook for advanced-undergraduate and graduate students in geophysics and a valuable reference for practising geophysicists, geologists, hydrologists, archaeologists, and civil and geotechnical engineers.

Geophysical inversion is an ill-posed problem. Classical local search method for inversion is depend on initial guess and easy to be trapped in local optimum. The global optimization is a group of novel methods to deal with the problems mentioned above. The book introduces the geophysical inversion theory, including the classical solving approaches firstly. Then, it introduces several typical global inversion approaches including particle swarm optimization (PSO), differential evolution (DE), and multiobjective optimization methods, as well as some examples to inverse the geophysical data, such as gravity, MT sounding, well logging, self-potential, seismic data, using these global optimization approaches.

Mining Geophysics

Principles, Practices, and Applications

Theory and Applications in Environmental Geosciences

Potential Theory in Gravity and Magnetic Applications

The Wim Hof Method

The Tools

Gravity and Magnetic Exploration

Unlock your potential and finally move forward. A recent study showed that when doctors tell heart patients they will die if they don't change their habits, only one in seven will be able to follow through successfully. Desire and motivation aren't enough: even when it's literally a matter of life or death, the ability to change remains maddeningly elusive. Given that the status quo is so potent, how can we change ourselves and our organizations? In Immunity to Change, authors Robert Kegan and Lisa Lahey show how our individual beliefs—along with the collective mind-sets in our organizations—combine to create a natural but powerful immunity to change. By revealing how this mechanism holds us back, Kegan and Lahey give us the keys to unlock our potential and finally move forward. And by pinpointing and uprooting our own immunities to change, we can bring our organizations forward with us. This persuasive and practical book, filled with hands-on diagnostics and compelling case studies, delivers the tools you need to overcome the forces of inertia and transform your life and your work.

The welcome accorded to the first two editions of this book has been most encouraging. The object of the third edition continues to be to give a brief but “fairly comprehensive survey of the methods of applied geophysics including some of the modern interpretation techniques. The general approach and plan of the previous editions are preserved, but in bringing the book up to date some changes have been made to which I would like to draw the reader's special attention. SI units are strictly adhered to except in six illustrative figures reproduced from older literature and left intact to save some extensive redrafting. Following the recommendation of the International Union of Geodesy and Geophysics, the magnetic field measured in geophysical work is labelled here as flux density (tesla). Consequently, the symbols H, Z and T commonly used in geomagnetic work should stand for flux density. In the Max wellian theory of electromagnetism the symbol H stands, by convention, for a magnetizing force (A m⁻¹) and a discerning reader will at once sense a source of confusion. This source of confusion is avoided in the present edition by B, B and B instead of H, Z and T. The employing the symbols b z latter –it is employed for the corresponding magnetizing forces of the earth's field. I hope this notation will gain general acceptance because it so easily dispenses with an ambiguity that otherwise tends to lead to unnecessary confusion of units and dimensions in geophysics.

This report consists of four distinct but complementary parts: a laboratory/field study of environmental effects on self-potential (SP) electrodes and long-term stability of the electrodes; field investigations at Beaver Dam, Arkansas; development of a computer program for interpreting seepage-related SP field survey data; and development of an extensive bibliography and database for acquisition and interpretation of seepage-related SP data. The geotechnical problem at the Beaver Dam, AR, site was anomalous underseepage in the foundation of a large embankment dike. SP data were effectively used to map the seepage paths. Three electrodes were investigated: non-polarizing copper-copper sulfate (CS), copper-clad steel (CCS), and lead. Of the three, the commercial-grade lead electrodes are most suitable for long-term monitoring of SP. CS electrodes with gelled electrolyte appear capable of surviving at least a few years without maintenance or significant deterioration of physical properties or performance. For SP measurements, CCS electrodes have a lower signal to noise ratio than do CS electrodes. Field and laboratory measurements indicate that responses of CCS electrodes to environmental disturbances are an order of magnitude or greater than CS electrodes. The higher noise level is due both to the direct exposure of the metal to the soil as well as the exposure of the unburred portion of the electrodes to solar heating and rainfall. Thus, the considerably higher initial cost and extra effort involved in installation of the CS electrodes are justified, and CS electrodes are recommended for geotechnical applications of the SP method. (EDC).

Seismic inversion aims to reconstruct a quantitative model of the Earth subsurface, by solving an inverse problem based on seismic measurements. There are at least three fundamental issues to be solved simultaneously: non-linearity, non-uniqueness, and instability. This book covers the basic theory and techniques used in seismic inversion, corresponding to these three issues, emphasising the physical interpretation of theoretical concepts and practical solutions. This book is written for master and doctoral students who need to understand the mathematical tools and the engineering aspects of the inverse problem needed to obtain geophysically meaningful solutions. Building on the basic theory of linear inverse problems, the methodologies of seismic inversion are explained in detail, including ray-impedance inversion and wavenum tomography etc. The application methodologies are categorised into convolutional and wave-equation based groups. This systematic presentation simplifies the subject and enables an in-depth understanding of seismic inversion. This book also provides a practical guide to reservoir geophysicists who are attempting quantitative reservoir characterisation based on seismic data. Philosophically, the seismic inverse problem allows for a range of possible solutions, but the techniques described herein enable geophysicists to exclude models that cannot satisfy the available data. This book summarises the author's extensive experience in both industry and academia and includes innovative techniques not previously published.

Applied Geophysics

Use of the Self-potential Method for Geothermal Exploration

Hydrogeophysics

Geophysical Potential Fields

The Self-potential Method

Transform Your Problems Into Courage, Confidence, and Creativity

Developments in Economic Geology, 5: Principles of Induced Polarization for Geophysical Exploration focuses on the principles, methodologies, and approaches involved in induced polarization (IP), including anisotropism, electromagnetic coupling, and electrical circuits. The book first takes a look at resistivity principles, theory of IP, and laboratory work in IP. Concerns cover electrical measurements of rocks, anisotropism, early part of decay curve and the comparison with frequency effects, electrical models of induced polarization, electrical polarization, resistivities of earth materials, and resistivity exploration methods. The manuscript then elaborates on IP field equipment, telluric noise and electromagnetic coupling, IP field surveying, and drill-hole and underground surveying and the negative IP effect. Discussions focus on differences between surface and subsurface methods, current-sending system in the field, telluric (earth) currents, electromagnetic coupling, design considerations, coupling of electrical circuits, design considerations, and signal-generating system. The manuscript ponders on the complex-resistivity method and interpretation of induced-polarization data, including grade estimation of mineralization using the IP method, complex-resistivity survey, signal detection capabilities of the complex-resistivity method, and disadvantages of the complex-resistivity method. The text is a valuable source of information for researchers wanting to study induced polarization.

This ground-breaking work is the first to cover the fundamentals of hydrogeophysics from both the hydrogeological and geophysical perspectives. Authored by leading experts and expert groups, the book starts out by explaining the fundamentals of hydrological characterization, with focus on hydrological data acquisition and measurement analysis as well as geostatistical approaches. The fundamentals of geophysical characterization are then at length, including the geophysical techniques that are often used for hydrogeological characterization. Unlike other books, the geophysical methods and petrophysical discussions presented here emphasize the theory, assumptions, approaches, and interpretations that are particularly important for hydrogeological applications. A series of hydrogeophysical case studies illustrate hydrogeophysical approaches for mapping hydrological units, estimation of hydrogeological parameters, and monitoring of hydrogeological processes. Finally, the book concludes with hydrogeophysical frontiers, i.e. on emerging technologies and stochastic hydrogeophysical inversion approaches.

This book focuses on the application of hydrogeophysical methods to the understanding of hydrological processes and environmental problems dealing with the flow of water and the transport of solutes and contaminants. Taking a process-driven approach, the book offers a series of process-driven chapters, each authored by leading experts. Areas covered include: infiltration and solute transport processes, biogeochemical functioning of soil-water systems, coastal groundwater interactions, cold region hydrology, engineered barriers and landfill processes.

INSTANT NEW YORK TIMES BESTSELLER The only definitive book authored by Wim Hof on his powerful method for realizing our physical and spiritual potential. “This method is very simple, very accessible, and endorsed by science. Anyone can do it, and there is no dogma, only acceptance. Only freedom.” —Wim Hof Wim Hof has a message for each of us: “You can literally do the impossible. You can overcome disease, improve your mental health and physical performance, and even control your physiology so you can thrive in any stressful situation.” With The Wim Hof Method, this trailblazer of human potential shares a method that anyone can use—young or old, sick or healthy—to supercharge their capacity for strength, vitality, and happiness. Wim has become known as “The Iceman” for his astounding physical feats, such as spending hours in freezing water and running barefoot marathons over deserts and ice fields. Yet his most remarkable achievement is not any record-breaking performance—it is the creation of a method that thousands of people have used to transform their lives. In his gripping and passionate style, Wim shares his method and his story, including: [] Breath—Wim’s unique practices to change your body chemistry, infuse yourself with energy, and focus your mind [] Cold—Safe, controlled, shock-free practices for using cold exposure to enhance your cardiovascular system and awaken your body’s untapped strength [] Mindset—Build your willpower. Inner clarity, sensory awareness, and innate joyfulness in the miracle of living [] Science—How users of this method have redefined what is medically possible in study after study [] Health—True stories and testimonials from people using the method to overcome disease and chronic illness [] Performance—Increase your endurance, improve recovery time, up your mental game, and more [] Wim’s Story—Follow Wim’s inspiring personal journey of discovery, tragedy, and triumph [] Spiritual Awakening—How breath, cold, and mindset can reveal the beauty of your soul Wim Hof is a man on a mission: to transform the way we live by reminding us of our true power and purpose. “This is how we will change the world, one soul at a time,” Wim says. “We alter the collective consciousness by awakening to our own boundless potential. We are limited only by the depth of our imagination and the strength of our conviction.” If you’re ready to explore and exceed the limits of your own potential, The Wim Hof Method is waiting for you.

Use of the Self-potential Method for Measurement of Subsurface Water Flow at a Pump-and-treat Remediation Site

How to Overcome It and Unlock the Potential in Yourself and Your Organization

The Self-Potential Method

Theory and Applications to the Near-Surface Earth

Mining Geophysics

Geophysical Inversion Theory and Global Optimization Methods

Geophysical Potential Fields: Geological and Environmental Applications, Volume Two, investigates the similarities and differences of potential geophysical fields, including gravity, magnetics, temperature, resistivity and self-potential, along with the influence of noise on these fields. As part of the Computational Geophysics series, this volume provides computational examples and methods for effectively solving geophysical problems in a full cycle manner. Including both quantitative and qualitative analysis, the book offers different filtering and transformation procedures, integrated analysis, and special interpretation techniques. The book also includes applications of gravity and magnetic fields in complex environments. The book also includes applications of the unified potential field system, such as studying deep structure, searching hydrocarbon and ore deposits, localizing buried water horizons and rockslide areas, tectono-structural mapping of water basins, and classifying archaeological targets. It is an ideal and unique resource for geophysicists, exploration geologists, archaeologists and environmental scientists. Clearly demonstrates the successive stages of geophysical field analysis for different geological and environmental targets Provides a unified system for potential geophysical field analysis that is demonstrated by numerous examples of system application Demonstrates the possibilities for rapidly and effectively interpreting anomalies, receiving some knowledge of modern wavelet, diffusion maps and informational approach applications in geophysics, and combined gravity-magnetic methodology of 3D modeling Includes text of the Geological Space Field Calculation (GSFC) software intended for 3D combined modeling of gravity and magnetic fields in complex environments

The self-potential method is a simple yet innovative process, enabling non-intrusive assessment and imaging of disturbances in electrical currents of conductive subsurface materials, by measuring the electrical response at the ground's surface or in boreholes. It has an increasing number of applications, from mapping fluid flow in the subsurface of the Earth, to understanding the plumbing systems of geothermal fields, and detecting preferential flow paths in earth dams and embankments.

This book aims to inform policy makers, engineers and earth scientists about the current and emerging role of geophysics in addressing environmental processes, assessments, and policy directions related to new and existing dams and levees. Until now geophysics has concentrated on characterization and remediation of dams and levees, but now the field is changing our understanding on the influence of natural processes (e.g., floods, dissolution) and human activities in the design, and management of these structures. This monograph includes advances in the following fields of Dams and Levees studies: · New insights from small and mid-sized laboratory experiments· Integrated methods electromagnetic, seismic, potential methods· Inverse modeling approaches· Statistical considerations· Monitoring of processes attending aging structures · Hazard monitoring· Risk Analysis

This edited volume is based on the best papers accepted for presentation during the 1st Springer Conference of the Arabian Journal of Geosciences (CAJG-1), Tunisia 2018. This special volume is of interest to all researchers practicing geophysicists/seismologists, students of PG and UG in the fields of multifaceted Geoscience. Major applications with relevant illustrations presented in the volume are from Middle East. And therefore, this book no doubt would serve as a reference guide to all geoscientists and students in the broad field of Earth Science. This volume covers significant applications of gravity and magnetic methods, electrical and electromagnetic methods, refraction and reflection seismic methods besides a large number of study on earthquakes, tectonics and geological settings etc. The salient features of this volume are the interpretation and modeling of geophysical data of different nature. Main topics include: 1. Applications of gravity and magnetic methods.2. Electrical and Electromagnetic methods in mineral and groundwater exploration.3. Case studies on refraction and reflection seismic methods.4. Integrated geoscience applications in the exploration of subsurface resources.5. Hydrocarbon exploration and petrophysical studies.6. Earthquakes and seismic hazard assessment.7. Tectonics

Near-Surface Applied Geophysics

Foundations of Potential Theory

Groundwater Geophysics in Hard Rock

Geotechnical Applications of the Self-potential Method

Geophysics and Ocean Waves Studies

Development of the self-potential interpretation techniques for seepage detection. Report 3

The present volume gives a systematic treatment of potential functions. It takes its origin in two courses, one elementary and one advanced, which the author has given at intervals during the last ten years, and has a two-fold purpose first, to serve as an introduction for students whose attainments in the Calculus include some knowledge of partial derivatives and multiple and line integrals and secondly, to provide the reader with the fundamentals of the subject, so that he may proceed immediately to the applications, or to -the periodical literature of the day. It is inherent in the nature of the subject that physical intuition and illustration be appealed to freely, and this has been done. However, in order that the ok may present sound ideals to the student, and also serve the mathematician, both for purposes of reference and as a basis for further developments, the proofs have been given by rigorous methods. This has led, at a number of points, to results either not found elsewhere, or not readily accessible. Thus, Chapter IV contains a proof for the general regular region of the divergence theorem Gauss, or Greens theorem on the reduction of volume to surface integrals. The treatment of the fundamental existence theorems in Chapter XI by means of integral equations meets squarely the difficulties incident to the discontinuity of the kernel, and the same chapter gives an account of the most recent developments with respect to the Poinchet problem. Exercises are introduced in the conviction that no mastery of a mathematical subject is possible without working with it. They are designed primarily to illustrate or extend the theory.

This is the completely revised and updated version of the popular and highly regarded textbook, Applied Geophysics. It describes the physical methods involved in exploration for hydrocarbons and minerals, which include gravity, magnetic, seismic, electrical, electromagnetic, radioactivity, and well-logging methods. All aspects of these methods are described, including basic theory, field equipment, techniques of data acquisition, data processing and interpretation, with the objective of locating commercial deposits of minerals, oil, and gas and determining their extent. In the fourteen years or so since the first edition of Applied Geophysics, many changes have taken place in this field, mainly as the result of new techniques, better instrumentation, and increased use of computers in the field and in the interpretation of data. The authors describe these changes in considerable detail, including improved methods of solving the inverse problem, specialized seismic methods, magnetotellurics as a practical exploration method, time-domain electromagnetic methods, increased use of gamma-ray spectrometers, and improved well-logging methods and interpretation.

This combination of textbook and reference manual provides a comprehensive account of gravity and magnetic methods for exploring the subsurface using surface, marine, airborne and satellite measurements. It describes key current topics and techniques, physical properties of rocks and other earth materials, and digital data analysis methods used to process and interpret anomalies for subsurface information. Each chapter starts with an overview and concludes by listing key concepts to consolidate new learning. An accompanying website presents problem sets and interactive computer-based exercises, providing hands-on experience of processing, modeling and interpreting data. A comprehensive online suite of full-color case histories illustrates the practical utility of modern gravity and magnetic surveys. This is an ideal text for advanced undergraduate and graduate courses and reference text for research academics and professional geophysicists. It is a valuable resource for all those interested in petroleum, engineering, mineral, environmental, geological and archeological exploration of the lithosphere.

This new edition of the well-established Kearey and Brooks text is fully updated to reflect the important developments in geophysical methods since the production of the previous edition. The broad scope of previous editions is maintained, with even greater clarity of explanations from the revised text and extensively revised figures. Each of the major geophysical methods is treated systematically developing the theory behind the method and detailing the instrumentation, field data acquisition techniques, data processing and interpretation methods. The practical application of each method to such diverse exploration applications as petroleum, groundwater, engineering, environmental and forensic is shown by case histories. The mathematics required in order to understand the text is purposely kept to a minimum, so the book is suitable for courses taken in geophysics by all undergraduate students. It will also be of use to postgraduate students who might wish to include geophysics in their studies and to all professional geologists who wish to discover the breadth of the subject in connection with their own work.

Seismic Inversion

Applied Hydrogeophysics

Principles of Induced Polarization for Geophysical Exploration

Theory and Applications

Potential Theory in Applied Geophysics

Smart but Scattered

In this important, entertaining book, one of the world's most celebrated psychologists, Martin Seligman, asserts that happiness can be learned and cultivated, and that everyone has the power to inject real joy into their lives. In Authentic Happiness, he describes the 24 strengths and virtues unique to the human psyche. Each of us, it seems, has at least five of these attributes, and can build on them to identify and develop to our maximum potential. By incorporating these strengths—which include kindness, originality, humor, optimism, curiosity, enthusiasm and generosity—into our everyday lives, he tells us, we can reach new levels of optimism, happiness and productivity. Authentic Happiness provides a variety of tests and unique assessment tools to enable readers to discover and deploy those strengths at work, in love and in raising children. By accessing the very best in ourselves, we can improve the world around us and achieve new and lasting levels of authentic contentment and joy.

The book deals primarily with the aspects of advances in Self-Potential geophysical data modeling, different interpretation techniques, new ideas and an integrated study to delineate the subsurface structures associated with exploration, contamination, buried paleochannels, archaeological investigations, glaciology, geomorphology, subsurface mapping and also in hydrocarbon exploration. The book is specifically aimed with the state-of-art information regarding research advances and new development in these areas of study, coupled to extensive modelling and field investigations obtained from around the world. It is extremely enlightening for the students, research workers, scientists, faculty members in Applied Geophysics, Potential field, Electrical and Electromagnetic methods, Mathematical Modeling Techniques in Earth Sciences, as well as Environmental and other practical problems associated with Earth Sciences.

The book “Geophysics and Ocean Waves Studies” presents the collected chapters in two sections named “Geophysics” and “Ocean Waves Studies”. The first section, “Geophysics”, provides a thorough overview of using different geophysical methods including gravity, self-potential, and EM in exploration. Moreover, it shows the significance of rock physics properties and enhanced oil recovery phases during oil reservoir production. The second section, “Ocean Waves Studies”, is intended to inform the reader with strong description of the latest developments in the physical and numerical description of wind-generated and long waves, including some new features discovered in the last few years. The section is organized with the aim to introduce the reader from offshore to nearshore phenomena including a description of wave dissipation and large-scale phenomena (i.e., storm surges and landslide-induced tsunamis). This book shall be of great interest to students, scientists, geologists, geophysicists, and the investment community.

Self-Potential Method: Theoretical Modeling and Applications in Geosciences

Principles of Applied Geophysics

Innovative Exploration Methods for Minerals, Oil, Gas, and Groundwater for Sustainable Development