The Archaean: Geological and Geochemical Windows into the Early Earth
Indian Shield
Catalogue of Scientific Serials of All Countries, Including the Transactions of Learned Societies in the Natural, Physical and Mathematical Sciences, 1633-1876
Salt-range Fossils
Crustal Evolution of India and Antarctica
Basin Evolution and Petroleum Prospectivity of the Continental Margins of India
Life as a Geographer in India
Geology at MIT 1865-1965: A History of the First Hundred Years of Geology at Massachusetts Institute of Technology
Geology of India Bulletin
Geology of India, for Students
Structural Geology and Tectonics Field Guidebook -- Volume 1
Geomorphology of the Sonar Bearma Basin
Bulletin - U.S. Geological Survey
Jurassic Fauna of Kutch United States Congressional Serial Set
Geological Evolution of the Precambrian Indian Shield
Proterozoic Orogens of India
Memoirs of the Geological Survey of India
Historical Geology of India
Atlas of Deformed and Metamorphosed Rocks from Proterozoic Orogens
Cratons and Fold Belts of India
Himalayan Bronzes
Report; Proceedings of Section[s].
Glacial and Fluvial Geomorphology of Western Himalaya
Records of the Geological Survey of India
Geological Survey Bulletin
The Data of Geochemistry
Bibliographie générale sur les monts Nilgiri de l'Inde du sud
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Remote Sensing and Mineral Exploration
Geo-Resources
Memoirs of the Geological Survey of India
Fauna of Baluchistan and N. W. Frontier of India
FUNDAMENTALS OF SOIL DYNAMICS AND EARTHQUAKE ENGINEERING
Landscapes and Landforms of India
The Lithosphere Beneath the Indian Shield
Survey of World Iron Ore Resources: Occurrence, Appraisal and Use
Mesozoic Stratigraphy of India
This is the first book which provides an engaging and insightful narrative on the life of a geographer in India. The author introspects on her own experiences and engagements with the discipline and explores the life and works of twenty-four other geographers from India. The volume documents and acknowledges the commitment of geographers to life, teaching, and the subject of geography. Collectively these provide an insight into the growth and expansion of the discipline in the country. The book offers...
critical perspectives on the changing disciplinary practices within the field of geography by highlighting the major achievements and teaching methods of geographers. It highlights the diverse interests, themes, and problems in geography which these geographers pursued while also influencing the lives of other researchers and professionals. This book will be of immense interest to students, teachers, and researchers of geography and social anthropology and readers interested in the lives of these influential educators and academicians. This book completes Professor Shrock's full-scale history of MIT's Geology Department. Volume I, Faculty and Supporting Staff, presented biographical sketches of the first fifty-three professors of geology, supplemented by discussions of the founding of the Institute, the development of the geology faculty and curriculum, and the nature and extent of assistance given by support staff. The biographies covered such figures as MIT's founder, W. B. Rogers, "a practical scientist"; economic geologist Waldemar Lindgren; crystallographer Martin Buerger; geochemist T. Sterry Hunt; theorist R. A. Daly; geomorphologist Douglas Johnson, geochronologist P. M. Hurley; and geophysicist Frank Press. Volume II includes discussions of the MIT time capsule, laboratory and field work; facilities for teaching and research; financing of the geological sciences at the Institute; women in geology; geology, mineralogy, geophysics, geochemistry, geochronology, and oceanography at MIT; the Godfrey Lowell Cabot Spectrographic Laboratory; the Green building; the Geophysical Analysis Group (GAG) Project; and research on coal and the origin of petroleum. The names of all geology graduates from 1890 through 1970 appear, together with the titles of their dissertations and brief descriptions of the 175 books written by the Department's professors and graduates. Robert Rakes Shrock, who is Professor Emeritus, taught in MIT's Geology Department for thirtyeight years. He is the author of several text and reference works, including (with Hervey W. Shimer) Index Fossils of North America, which was published in 1944 and is still available from The MIT Press. This book envisages a multi-proxy approach using stable isotopes, geochemical proxies, magnetic susceptibility and associated biotic events for paleoclimatic and paleoenvironmental interpretations of the Mesozoic sedimentary record of India. Mesozoic rocks of India record abnormal sea level rise, greenhouse climate, intensified volcanism, hypoxia in
seawater, extensive black shale deposition, and hydrocarbon occurrence. The Mesozoic has also witnessed mass extinction events, evolution of dinosaurs, and breakdown of the supercontinent Pangea and the formation of Gondwana. Although the Mesozoic geology of India has witnessed significant progress in the last century, literature survey reveals a huge gap in knowledge regarding sequence stratigraphy, chemostratigraphy and key geological events. A synthesis of sedimentological, paleontological and chemical data is included to presenting a comprehensive understanding of the Indian Mesozoic record to students, researchers and professionals.

Remote Sensing and Mineral Exploration contains the proceedings of the international workshop on remote sensing and mineral exploration, held in Bangalore, India in June 1979. The compendium is comprised of papers presented at the workshop and reflects the state of remote sensing in the field of geology and exploration for mineral and energy resources. The two-day conference serves as a platform for geologists and other experts in related fields to share experiences and research studies on the use of satellites and other remote sensing techniques in geologic mapping and mineral and energy exploration. Topics presented include, contributions of LANDSAT data to the geological survey of India; characteristics of the LANDSAT system and data for geologic applications; application of remote sensing techniques to petroleum exploration; and an automatic method of discriminating rock outcrops using LANDSAT data. Geologists, petroleum and mineral exploration experts, and researchers will find this book an interesting reading material.

This book presents findings from research into the Precambrian history of the Indian shield obtained using state-of-the-art technology. It demonstrates a paradigm shift towards studying the Precambrian shield regions using petrological, geochemical, structural, metallogenic, sedimentological and paleobiological data from the rocks in the Precambrian shield area, and presents a collection of contributions on these diverse topics that help to reconstruct the Precambrian evolution of the Indian Shield. The book will be an everlasting and invaluable reference for, academia, industry and planners specialized in georesource and for those who need updated information and current research in the field. The book will also be equally useful for advance level students and research scholars throughout the world.

Includes the Annual report of the Geological Survey of India, 1867-Indian Shield: Precambrian
Evolution and Phanerozoic Reconstitution highlights unique evolutionary trends covering a period of over 3,500 million years, from the oldest crust to the most recent geological activity of the Indian Subcontinent. The book discusses regional terrain geology in terms of the evolutionary history of the crust, describing how the Precambrian Shield evolved from a stable continental region to a tectonically unstable zone marked by frequent high-intensity earthquakes in a Plate-interior setting. It is a complete and readable account of the history of growth and evolution of the Indian Subcontinent, including Bangladesh, Bhutan, India, Nepal and Pakistan. The book is intended for graduate students, researchers, and teachers in the geosciences, especially geophysics, geomorphology and geology. The book also serves as an important resource for tectonics and petrology researchers, as well as those involved in exploration of mineral resources. Features comprehensive geological information on the evolution of the Indian Subcontinent, from the growth of early crust to the present day in a single volume. Discusses different processes of post-Precambrian reconstitution of the Indian Shield that ultimately produced the present-day geomorphology as well as the tectonic character of the region. Assesses the impacts and effects of the ongoing post-Himalayan tectonism on the Indian Subcontinent. ‘Historical Geology of India’ is a textbook for graduate and post-graduate students of geology, geophysics and other earth sciences for Indian Universities. It also caters to the universities of USA, UK, Australia, New Zealand and Canada as one or two credit courses on regional studies are included in the curriculum. Besides it can be useful to professional geologists and geophysicists working on various projects in India. The book has been specially designed to cover the course content of major Indian Universities and the approved syllabi of the University Grants Commission. This book has not been written in the classical style of what is where and when was it formed; instead there has been an attempt to base the entire history on the time control as available from latest data on high resolution stratigraphy through fossil content, radiometric dating and palaeomagnetic studies. There is a special focus on the tectonic history of the entire subcontinent through time from Precambrian times to present day. Cratons and Fold Belts of India, is a unique attempt at presenting geological characteristics and evolution of the fold belts and the cratonic areas of the Indian shield. The
author has evaluated the different evolutionary models for each fold belt in light of all the currently available geological and geochronological informations that are clearly listed. Shortcomings, if any, of each model are stated and a viable geodynamic model is presented for each fold belt. The book is self-contained – it includes an introduction to the processes of mountain building, especially plate tectonics theory with its application to the evolution of the Himalaya as an illustrative example – so that the reader can better appreciate the novel approach to the evolution of Proterozoic fold belts. The author eschews a detailed account of the fold belts for a clear description of all the concepts that go into building models. It is primarily written for graduate students, teachers and for those geoscientists who aspire to know all about the Indian shield.

During the past 10 years, the Oil industry in India has seen a tremendous rise in exploration activity with several major E&P companies generating vast amount of new geological and geophysical data. The availability of such integrated data sets (gravity, magnetic, seismic, drilled wells), especially in the deep offshore basins, has led the authors to revisit earlier concepts and models in order to redefine the tectonic framework of major offshore basins along the Indian continental margins. The book covers the stratigraphic evolution, play types and the classification of major offshore basins both in shallow and deepwater environments. Incorporation of latest dataset (specially the seismic, gravity and magnetic) Analogy of global offshore basins with India Sedimentation and depositional history of Bengal fan and Indus fan Redefinition of major tectonic framework of the margins Exceleent high quality graphics that include: seismic sections, gravity-magnetic maps, conceptual geological models and new revised tectonic elementsThe Proterozoic aeon involved at least three major continental readjustments. India and Antarctica appear in most models of supercontinent reconstructions, but their relative position has been the subject of debate. High-resolution petrological and geochronological data, especially from the Proterozoic mobile belts, provide the principal means of resolving this issue. The ice-covered nature of Antarctica allows only limited access to the rocks, and then only in coastal tracts, so detailed studies in more accessible Proterozoic terrains in India assume added significance. This volume, a follow-up to the XII International Symposium on Antarctic
Earth Science, Goa (a SCAR symposium), provides new data from selected locations in east Antarctica (Enderby Land and Dronning Maud Land) and from India, including the Eastern Ghats Mobile Belt (EGMB), Chota Nagpur Gneissic Complex, the Khasi Hills and the Aravalli–Delhi Mobile Belt. The presented geochronological data, constrained by petrological studies, are expected to provide new insights, especially into the EGMB–east Antarctica connection and the rate of continental readjustments in the post-Rodinia break-up. This book has been considered by academicians and scholars of great significance and value to literature. This forms a part of the knowledge base for future generations. We have represented this book in the same form as it was first published. Hence any marks seen are left intentionally to preserve its true nature.

Proterozoic Orogens of India: A Critical Window to Gondwana provides a unique opportunity to understand a cross-section of the well-exposed and best-studied part of Earth’s crust and the processes of continental collision. It covers pulses of reworking processes and their impact on magmatism, metamorphism and deformational history of Proterozoic orogens vis-à-vis the supercontinental formation. The details of structural architecture, crustal blocks, shear zone systems, magmatism, metamorphism, geochemical and isotopic signatures, mineralization and tectonic models of all the Proterozoic orogens of India are discussed along with excellent illustrations reflecting the field-based, multi-scale structural and geological data sets. The spatial distribution, geometry, kinematics and transpressional strain of the shear zone systems (mostly suture zones), which are critical to all conceptual models dealing with tectono-metamorphic history of Proterozoic orogens of India, are also covered. The book summarizes and integrates the state-of-the-art understanding of the structural architecture, lithological assemblages, petrological, geochemical, geochronological and geophysical aspects of the Proterozoic orogens of India. Includes a much needed state-of-the-art tectonic summary of the voluminous data that has emerged from the Proterozoic orogens of India in the last 2-3 decades Authored by a well-established expert with more than 30 years of experience in the field based, multi-scale structural geological studies of the ancient orogens of India Covers up-to-date reviews and models of Proterozoic orogens developed in the Indian shield over the past 2.5 billion years of Earth history This book explores the
geotectonic evolution of the lithosphere beneath the Indian Shield, which comprises a collage of cratons variously bounded by mobile belts and palaeo-rifts. The lithosphere beneath these is fairly thin compared to other cratons worldwide, petrologically varied and shows considerable variation in thickness with depth both intra-craton and among cratons. Moreover, it has been subjected to the influence of repeated magmatic episodes from Proterozoic to Palaeocene, which have variously impacted different parts of the shield. The thermotectonic influence on constituent cratons is variable depending on the evolutionary history. This book discusses the impact of successive tectonomagmatic events on the evolution of the deep crust and shallow mantle, and their Phanerozoic modification as gleaned through the xenolith window. The book provides a petrotectonic perspective on the deep crust and shallow mantle from direct samples brought up as xenoliths of deep lithologies, and offers a comprehensive overview for students, researchers, academics and professionals, integrating the results of petrological studies of deep lithologies and geophysical investigations to (i) shed light on the physico-chemical and thermal structure of the lithosphere from an array of geotectonic settings and (ii) gain insights into the spatio-temporal evolution of the Indian Shield. An in-depth guide critical thinking on the complex issue of mantle differentiation, magmatism, lithosphere modification and crustal growth over time, the book allows readers to gain a better understanding of the processes that affect the lithosphere and shape the crust on which we live. The proposed monograph on 'Geomorphological Landscapes of India' will aim to describe and explain in simple words the geomorphological characteristics and the origin of the above-mentioned landforms and landscapes. The proposed monograph will provide the background information about the geology, climate and tectonic framework of the Indian region, as well as cover Indian climates of the present and the past. It will mainly cover the four main morphotectonic regions of India and about 15-20 distinct landforms of the Indian region as well as the major geomorphosites in India. The majority of the cases of earthquake damage to buildings, bridges, and other retaining structures are influenced by soil and ground conditions. To address such phenomena, Soil Dynamics and Earthquake Engineering is the appropriate discipline. This textbook presents the fundamentals of Soil Dynamics, combined with
the basic principles, theories and methods of Geotechnical Earthquake Engineering. It is designed for senior undergraduate and postgraduate students in Civil Engineering & Architecture. The text will also be useful to young faculty members, practising engineers and consultants. Besides, teachers will find it a useful reference for preparation of lectures and for designing short courses in Soil Dynamics and Geotechnical Earthquake Engineering. The book first presents the theory of vibrations and dynamics of elastic system as well as the fundamentals of engineering seismology. With this background, the readers are introduced to the characteristics of Strong Ground Motion, and Deterministic and Probabilistic seismic hazard analysis. The risk analysis and the reliability process of geotechnical engineering are presented in detail. An in-depth study of dynamic soil properties and the methods of their determination provide the basics to tackle the dynamic soil–structure interaction problems. Practical problems of dynamics of beam–foundation systems, dynamics of retaining walls, dynamic earth pressure theory, wave propagation and liquefaction of soil are treated in detail with illustrative examples. Atlas of Deformed and Metamorphosed Rocks from Proterozoic Orogens is a richly illustrated reference book featuring over 660 full-color field images of a range of lithologies from some Proterozoic terrains that were subjected to multiple events of magmatism, deformation, metamorphism, and metasomatism. The Atlas focuses on amphibolite to granulite facies lithologies and associated ma?c-ultrama?c rocks from Proterozoic orogens of India, Sri Lanka, Botswana, South Africa, East Antarctica, and Western Australia. Each chapter in the book begins with a brief review of geology, including deformation and metamorphic history, along with a regional geological map to help readers to visualize the ?eld observations in the relevant geological context. Each image is accompanied by a concise description providing location, lithology, structural fabric, possible deformational history, metamorphic features, partial melting, metasomatism, and other important crustal processes. This Atlas is an important source of information for a broad range of earth scientists, graduate and undergraduate students, researchers, academicians, and other professionals. This book will form a great treasure to those geoscientists who never had an opportunity to visit any of the Proterozoic orogenic belts. Features over 660 full-color photographs representing typical lithologies and
associated structural, metamorphic features, and other crustal processes from different Proterozoic orogens. Highlights the significance of field photographs in advancing new knowledge which may provide pathways for new research. Covers many important Proterozoic terranes of East Gondwana. Presents regional geologic maps from each Proterozoic orogen. This book helps a novice to explore the terrain independently. Geoscience fieldwork with a focus on structural geology and tectonics has become more important in the last few years from both academic and industrial perspectives. This book also works as a resource material for batches of students or geological survey professional undergoing training as parts of their course curriculum. Industry persons, on the other hand, can get a first-hand idea about what to expect in the field, in case no academic person is available with the team. This book focused on structural geology and tectonics compiles for the very first time terrains from several regions of the globe. Himalayan Bronzes focuses on a complete study of 340 medieval-period copper alloy sculptures from the Himalayan regions of Afghanistan, northern Pakistan, Kashmir, Himachal Pradesh, Nepal, and Tibet. For more than 1,500 years, artists in isolated valleys in and adjacent to the mountains of the Himalayas have created magnificent copper-based statues representing deities and spiritual leaders of the Hindu, Buddhist and Bon-Po religions. Author Chandra L. Reedy's multidisciplinary approach to the study of these statues integrates methods and techniques from art history, art conservation, geology, chemistry, statistics, archaeology, and ethnography to answer art historical and anthropological questions. Her guiding premise is that gathering and combining several types of information will result in more and better answers than any one type alone. Archaean terrains contain a wealth of structural, stratigraphic, textural, mineralogical, geochemical and isotopic features allowing insights into the nature of the early Earth. This book is based on studies during 1964-2007 of Archaean terrains in Australia and to a lesser extent in South Africa and India, as well as on visits to Archaean terrains in Canada, the US and China, as well as petrological and geochemical studies of igneous and sedimentary rock suites from a range of terrains. The book will include a range of photographic and microscopic images, geological sketch maps and diagrams illustrating the lessons derived from field and the laboratory. Also other Archaean terrains are being reviewed.
The book is intended for Earth scientists as well as broader intelligent readership.
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