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Titolo	Encyclopedia of Marine Geosciences // edited by Jan Harff, Martin Meschede, Sven Petersen, Jörn Thiede
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Descrizione fisica	1 online resource (1000 p. 440 illus., 140 illus. in color.)
Collana	Encyclopedia of Earth Sciences Series, , 1388-4360
Disciplina	551.46
Soggetti	Oceanography Geology Geophysics Ecology Physical geography Geophysics/Geodesy Physical Geography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Abyssal plain -- Accretionary wedge -- Acidification -- Active continental margin -- Anoxic oceans -- Asphalt volcanism -- Axial magma chamber -- Axial summit graben, axial summit trough -- Backarc basins and backarc spreading center -- Beach -- Beach nourishment -- Beach processes -- Biochronology -- Biogenic barium -- Biostratigraphy -- Bioturbation -- Black and white smoker -- Boninites -- Bottom simulating seismic reflector (BSR) -- Bottom-boundary layer -- Bouma sequence -- Break waters -- Carbon dioxide and climate (carbon cycle) -- Carbon isotopes/-stratigraphy -- Carbon pump -- Carbonate dissolution -- Carbonate factory -- CCD -- Chemosynthetic life -- Clay minerals -- Coastal bio-geochemical cycles -- Coastal engineering -- Coasts -- Cold seeps -- Continental margin sediments -- Continental rift system, graben -- Continental rise -- Continental slope -- Contour currents -- Convergence texture of seismic reflectors -- Core-complex formation -- Crustal accretion (incl. gabbro glacier model) -- Cumulate -- Curie temperature -- Currents -- Data banks (Pangaea) -- Decollement -- Deep biosphere

-- Deep Sea Fans -- Deep sea sediments -- Delta -- Depleted mantle
-- Detachment fault -- Diatoms -- Dinoflagellates -- Driving forces
(slab pull, ridge push) -- Dunes -- Dust in the ocean -- Dykes --
Earthquake -- El Nino -- Energy resources -- Epicenter, hypocenter --
Erosion and hiatuses -- Estuary, estuarine/anti-estuarine current
system -- Eustasy -- Events in ocean history -- Explosive volcanism in
the deep sea -- Export production -- Fault-plane solution -- Fjord --
Foraminifers (benthic) -- Foraminifers (planktonic) -- Forebulge
(lithospheric) -- Fracture zone -- Fresh water in the oceans -- Gabbro
-- Gas hydrates -- GEBCO -- Geochronology -- Geohazards (coastal
disasters) -- Geological effects of ocean circulation -- Geomagnetic
field -- Glacial marine sedimentation -- Glacio-isostatic adjustment --
Gravity field -- Grounding line -- Groynes -- Guyot, atoll -- Heat flow
-- High-pressure/low temperature metamorphism -- History of Marine
Geology -- Hot spots and mantle plumes -- Hurricanes/ Typhoons --
Hydrocarbons (natural oil and gas) -- Hydrothermalism --
Hydrothermal plumes -- Hydrothermal vent fluids -- IBCAO -- Ice
rafted debris (IRD) -- Impacts and their products -- Integrated Coastal
Zone Management -- Intracontinental rifting -- Intraoceanic
subduction zone -- Intraplate volcanism -- Island arc volcanism,
volcanic arcs -- Lagoon -- Laminated sediments -- Large igneous
provinces (LIP) -- Lava types (pillow lava, sheet flows, lobate, etc) --
Layering of oceanic crust -- Lithosphere -- Lithospheric mantle --
Lithostratigraphy -- Magmatism at convergent plate boundaries --
Magnetostatigraphy -- Magnetism and paleomagnetism -- Manganese
crusts, Co-rich manganese crusts -- Manganese nodules -- Mangrove
coast -- Mantle plume -- Marginal seas -- Marine evaporites -- Marine
microfossils -- Marine mineral resources -- Marine sedimentary
basins -- Mass wasting (slides) -- Methane in sediments -- Mid-ocean
ridges -- Mid-ocean ridge magmatism -- Milankovitch frequencies/-
cyclicities -- Modelling past oceans -- Modern analog technique --
Mohorovicic-discontinuity (Moho) -- Morain -- Morphology of a
subduction zone (forearc, backarc, deep sea trench) -- Mud volcano --
Nannoplankton/ coccolithophorids -- Nitrogen (stable) isotopes --
North Atlantic Oscillation (NAO) -- Oceanic crust -- Ocean drilling --
Ocean margin systems -- Oceanic rift system, Mid-Oceanic Ridge --
Oil spill -- Ophiolite -- Organic matter -- Orogeny -- Overlapping
spreading center -- Oxygen isotopes and --stratigraphy -- Paired
metamorphic belt -- Paleooceanographic proxies -- Paleooceanography
-- Paleophysiography of ocean basins -- Paleoproductivity -- Passive
plate margin -- Peridotite -- Petroleum, natural gas -- phosphorites
-- Placer deposits -- Plate motion -- Plate stratigraphy --
Pollen/spores -- Precambrian ocean basins -- Propagating rift --
Pteropods -- Pull-apart basin -- Push-up block -- Radiocarbon dating
-- Radiogenic tracers -- Radiolarians -- Reef coast -- Reefs --
Regional marine geology -- Regional oceanography and sediments --
Reflection/refraction seismology -- Regression -- Relative sea
level (RSL) cycle -- Ridge-plume interaction -- Salt domes in the ocean
-- Sapropel -- Sclerochronology -- Sea floor spreading -- Sea level
dynamics -- Sea walls / revetments -- Seamounts -- Sediment
dynamic -- Sediment transport models -- Sedimentary Sequence /
parasequence -- Seismic layers -- Seismogenic zone -- Sequence
stratigraphy -- Serpentinization -- Shelf -- Silica -- Source rocks,
reservoirs -- Spreading axis -- Spreading rates and ridge morphology
-- Stratigraphy (table) -- Subduction -- Subduction erosion --
Submarine canyon -- Subsidence -- Systems tracts (highstand,
lowstand, transgressive, shelf margin) -- Technology in marine
geosciences -- Terrane -- Tidal coast -- Transform fault --

Transgression -- Triple junction -- Tsunamis -- Turbidite / contourite
-- Underwater archaeology -- Upwelling in the ocean and its geological effects -- Volcanic eruptions as hazards -- Volcanism and climate -- Volcanogenic massive sulfides -- Wadati- Benioff-zone -- Wadden Sea -- Waves -- Wilson cycle.

Sommario/riassunto

Globally growing demand of energy and mineral resources, reliable future projection of climate processes and the protection of coasts to mitigate the threats of disasters and hazards require a comprehensive understanding of the structure, ongoing processes and genesis of the marine geosphere. Beyond the “classical” research fields in marine geology in current time more general concepts have been evolved integrating marine geophysics, hydrography, marine biology, climatology and ecology. As an umbrella the term “marine geosciences” has been broadly accepted for this new complex field of research and the solutions of practical tasks in the marine realm. The “Encyclopedia of Marine Geosciences” comprises the current knowledge in marine geosciences whereby not only basic but also applied and technical sciences are covered. Through this concept a broad scale of users in the field of marine sciences and techniques is addressed from students and scholars in academia to engineers and decision makers in industry and politics.
