1. Record Nr. UNINA9910782658203321

Autore	Gaines Susan M
Titolo	Echoes of life [[electronic resource]] : what fossil molecules reveal about earth history / / Susan M. Gaines, Geoffrey Eglinton, Jurgen Rullkotter ; scientific illustrations by Florian Rommerskirchen
Pubbl/distr/stampa	Oxford ; ; New York, : Oxford University Press, 2009
ISBN	0-19-988418-8 0-19-756225-6 1-281-86823-X 9786611868239 0-19-972108-4
Descrizione fisica	1 online resource (376 p.)
Collana	Oxford scholarship online
Altri autori (Persone)	EglintonG (Geoffrey) RullkotterJ
Disciplina	572/.33
Soggetti	Biomolecules, Fossil Biomolecules
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Previously issued in print: 2009.
Nota di bibliografia	Includes bibliographical references (p. 315-339) and index.
Nota di contenuto	Fossil Molecules in Geologic Time; Contents; 1. Molecular Informants: A Changing Perspective of Organic Chemistry; 2. Looking to the Rocks: Molecular Clues to the Origin of Life; 3. From the Moon to Mars: The Search for Extraterrestrial Life; 4. Black Gold: An Alchemist's Guide to Petroleum; 5. Deep Sea Mud: Biomarker Clues to Ancient Climates; 6. More Molecules, More Mud, and the Isotopic Dimension: Ancient Environments Revealed; 7. Microbiologists (Finally) Climb on Board; 8. Weird Molecules, Inconceivable Microbes, and Unlikely Environmental Proxies: Marine Ecology Revised 9. Molecular Paleontology and Biochemical Evolution10. Early Life Revisited; 11. Thinking Molecularly, Anything Goes: From Mummies to Oil Spills, Doubts to New Directions; Appendix: Biomarkers at a Glance; Glossary; Figure List; Selected Bibliography; Index; A Biomarker-centric Tree of Life
Sommario/riassunto	In 1936 a German chemist identified certain organic molecules in ancient rocks and oils as the fossil remains of chlorophyll, presumably

	from plants that had lived millions of years in the past. Many years later this insight was revisited and the term biomarker coined to describe fossil molecules whose molecular structures could reveal the presence of otherwise elusive organisms and processesand then, the hunt was on. Echoes of Life is the story of those molecules and how they illuminate the history of the earth and its life. It is also the story of how a few maverick organic chemists and geologists defied the dictates of their disciplines and, at a time when the natural sciences were fragmenting into ever-more-specialised sub-disciplines, reunited chemistry, biology and geology in a common endeavor.

2.

Record Nr.	UNINA9910786724903321
Autore	Bourne Neil <1964->
Titolo	Materials in mechanical extremes : fundamentals and applications / / Neil Bourne [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2013
ISBN	1-107-23607-X 1-5231-1337-5 1-107-34902-8 1-107-35756-X 1-107-34794-7 1-139-15226-2 1-107-34544-8 1-107-34169-8
Descrizione fisica	1 online resource (xi, 528 pages) : digital, PDF file(s)
Disciplina	620.1/1292
Soggetti	Materials - Mechanical properties Mechanics, Applied
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	1. Natural Extremes -- 2. A basic analytical framework -- 3. Platforms to excite a response -- 4. Tools to monitor response -- 5. Metals -- 6. Brittle materials -- 7. Polymers -- 8. Energetic materials -- 9. Asteroid

impact.

Sommario/riassunto

This unified guide brings together the underlying principles, and predictable material responses, that connect metals, polymers, brittle solids and energetic materials as they respond to extreme external stresses. Previously disparate scientific principles, concepts and terminology are combined within a single theoretical framework, across different materials and scales, to provide all the tools necessary to understand, and calculate, the responses of materials and structures to extreme static and dynamic loading. Real-world examples illustrate how material behaviours produce a component response, enabling recognition - and avoidance - of the deformation mechanisms that contribute to mechanical failure. A final synoptic chapter presents a case study of extreme conditions brought about by the infamous Chicxulub impact event. Bringing together simple concepts from diverse fields into a single, accessible, rigorous text, this is an indispensable reference for all researchers and practitioners in materials science, mechanical engineering, physics, physical chemistry and geophysics.