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Titolo	Earth's Early Atmosphere and Oceans, and The Origin of Life // by George H. Shaw
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ISBN	3-319-21972-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (117 p.)
Collana	SpringerBriefs in Earth Sciences, , 2191-5369
Disciplina	550
Soggetti	Geobiology Planetary science Earth Geology Environmental geology Biogeosciences Planetology Popular Earth Science Geoecology/Natural Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Accretional history of Earth -- Processes of degassing -- Atmospheric processing of degassed volatiles -- Early Archean "geography" -- Degassing processes -- Prebiotic chemistry -- why we should pay attention to this -- Eigen's hypercycle and the emergence of life -- How the carbon-rich surface is key to emergence of life -- Evolution of Earth starting with a carbon-rich surface -- Implications of this model -- Conclusions.
Sommario/riassunto	This book provides a comprehensive treatment of the chemical nature of the Earth's early surface environment and how that led to the origin of life, including a detailed discussion of the likely process by which life emerged using as much quantitative information as possible. The emergence of life and the prior surface conditions of the Earth have implications for the evolution of Earth's surface environment over the

following 2-2.5 billion years. The last part of the book discusses how these changes took place and the evidence from the geologic record that supports this particular version of early and evolving conditions.

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