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9.1 Introduction9.2 The mineral surface (and mineral-bio interface) and techniques for its study; 9.3 Mineral-organic-microbe interfacial processes: some key examples; Acknowledgements; References; 10. Eukaryotic Skeletal Formation; 10.1 Introduction; 10.2 Mineralization by unicellular organisms; 10.3 Mineralization by multicellular organisms; 10.4 A brief history of skeletons; 10.5 Summary; Acknowledgements; References; 11. Plants and Animals as Geobiological Agents; 11.1 Introduction; 11.2 Land plants as geobiological agents; 11.3 Animals as geobiological agents; 11.4 Conclusions
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Sommario/riassunto

2012 PROSE Award, Earth Science: Honorable Mention For more than fifty years scientists have been concerned with the interrelationships of Earth and life. Over the past decade, however, geobiology, the name given to this interdisciplinary endeavour, has emerged as an exciting and rapidly expanding field, fuelled by advances in molecular phylogeny, a new microbial ecology made possible by the molecular revolution, increasingly sophisticated new techniques for imaging and determining chemical compositions of solids on nanometer scales, the development of non-traditional stable