



Preface

Astrobiology

The search for the origin, evolution and future of life throughout the universe stands today, as in the past, as one of the most fundamental missions of the corresponding science of each epoch. From the first scientifically controlled experiments on the origin of life (1953), to the Viking Lander I launched specifically looking for life on the surface of Mars (1976), and the claimed finding of vestiges of extraterrestrial life on that planet (1996), Astrobiology as a scientific discipline in Mexico is just beginning to exist despite the fact that in the developed nations today it forms a major component of their research programs, on both basic and applied fields. The Boletín of the Sociedad Geológica Mexicana, in line with its long-lived tradition for disclosing to our national community important developments of nascent scientific disciplines such as Astrobiology, this special number of the Boletín brings together seven papers that cover a wide variety of astrobiological themes, starting with some basic geological aspects that characterized the beginnings of our solar system (the formation of chondrules), followed by how microscopic organisms thrive in present environments that could be analogs of

the primitive sites where life first evolved in the earth. The volume continues with a paleontological perspective on the origin of life based on the record of the oldest bio-vestiges, and then deals with the distribution of methane (an organic chemical compound of primordial importance) in the solar system, followed by three more papers that address the prebiotic conditions for the transformation of simple to more complex organic acids, the possibility of life forms leaving today in Europa (one of the moons of Jupiter), and finally dealing with the structure of the DNA molecule and other complex biological molecules that allow the existence of extremophile organisms.

It is hoped that the deep reading of these pioneer writings in Mexico on several aspects of Astrobiology may rise the interest of the young students in science, as well as scholar researchers from the fields of biology, geology, chemistry and astronomy to direct some of their thoughts and work for the advance of knowledge about perhaps the most fascinating expression of our physical universe: life.

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