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**Title: Astrobiology: Mud volcanoes and levels of radiation**

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Organisms on Earth are exposed to a certain amount of solar radiation. Exceeding these thresholds may threaten the organism in the biosphere with cellular mutations and even mortality. The central objective of this project is to do some preliminary measurements on the level of radioactivity around the mud volcano.

Within the mud volcano the anaerobic conditions are considered hostile to life. Investigation of how these conditions may affect the smallest and the most abundant form of life, the microbe, can help us in our search for life extra terrestrially. The radiation levels within the volcano and the threshold of organism that may live in volcanoes need to be explored, if a complete picture of the interaction of the microbes living there is to be elucidated. The radioactivity of the area around two mud volcanoes in Trinidad was investigated and by the use of a Geiger counter and the readings was collected. Preliminary experiments designed to test the radioactive threshold of microorganism within the mud in the mud volcano were executed. This was done by subjecting them to different radiation sources such as UV, IR and microwave radiation and tabulating their mortality rates at different times of exposure.