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CRYOSLEEP TECHNOLOGY FOR INTERPLANETARY MANNED MISSIONS

**Abstract**

Interplanetary space travel is a new modern subject of research, since numerous groups seek to get to Mars with current technology and travel across planets in quest of a new world that can support life. In the near future, humans will be onboard, posing significant challenges on humans survivability on board with limited oxygen and food supplies.

Humans can be put into a deep slumber to overcome the problem of oxygen and food by lowering the temperature around  $-200^{\circ}\text{C}$ . This procedure is known as Cryosleep. Cryosleep is a method of preservation of a human corpse in a confined chamber at an extremely low temperature so that it can be brought back to life and full health. The paper discusses the deployment of Cryosleep in space spacecraft, for interplanetary missions its need, feasibility, impacts on human health and effects on blood.

Using this technology, Food and oxygen consumption onboard can be reduced to a greater level that would facilitate long interplanetary manned missions and deeper space exploration.