

Tuesday, March 16, 2004

POSTER SESSION I: HUMAN OCCUPATION OF SPACE: RADIATION, RISK, AND REFUSE
7:00 p.m. Fitness Center

Yount B. Yukihiro E. McKeever S. W. S.

Discrimination of Heavy Charged Particles in a Mixed Irradiation Using Optically Stimulated Luminescence Methods [#1064]

We investigated the potential of aluminum oxide (Al_2O_3) for discrimination of different types of radiation (alpha and beta in this study) using Optically Stimulated Luminescence. This is done in an effort to predict, with greater accuracy, the health risk astronauts and other radiation workers face.

Zeitlin C. Andersen V. Atwell W. Cleghorn T. F. Cucinotta F. A. Lee K. T. Pinsky L. Saganti P.

MARIE: Current Status and Results from 20 Months of Observations at Mars [#1954]

We will discuss the current status of MARIE and review its achievements during the period of successful operation in 2002–2003.

Charles J. Evanoff J. Johnson M. Loerch L. Whelan S. Ammonette W. Sanders J.

Haralson C. Paloski W.

Mars Surface Analog Project: Preparing for Astronauts' First Hours on Mars [#1079]

Astronauts newly arrived on Mars after extended transit from Earth will show decrements in functional capabilities like those exhibited by returning ISS crewmembers. We attempted to define those capabilities as an aid for future mission planning.

Snook K. J. Mendell W. W.

The Need for Analogue Missions in Scientific Human and Robotic Planetary Exploration [#2130]

Analogue missions provide a unique opportunity to improve the scientific return and minimize the cost and risk of future planetary exploration. A systematic approach for categorizing analogue missions and assessing fidelity is proposed. Ten existing analogues are discussed as examples.

Takagi M. Yasaka T.

Space Debris in the Geosynchronous Earth Orbit: Debris Environmental Assessment and Its Implications on Cost and Benefit Analysis [#1386]

This paper conducts an environmental and economical evaluations of space debris in the Geosynchronous Earth Orbit (GEO) under different proposed mitigation measures, including new legal standards, such as a lower satellite explosion rate and restrictions on the number of launches.