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Radiation Fields, Effects and Risks in Human Space Missions (4)

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THE SPACE RADIATION ESTIMATION FOR HUMAN ACTIVITIES ON THE MOON

Abstract

As known, radiation protection is very important factor in manned space activity on the go. This study estimates the shielding ability of regolith on the moon. Using stopping power data of ICRU (International Commission on Radiation Units and Measurements) REPORT49 and 73, we simulated the approximate expression of the stopping power for the GCR (galactic cosmic ray) ions against silicon dioxide which are the main components of regolith. The relationship between the radiation absorption dose and depth of a silicon dioxide was investigated. The space radiation relative dose with every depth in the moon could be estimated by this study.