Abstract Submitted
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Alpha production via electromagnetic dissociation JOHN W. NORBURY, NASA Langley Research Center — Light ions produced from the interactions of galactic cosmic rays (GCR) provide a significant contribution to the space radiation environment inside spacecraft. Among the most important light ions are alpha particles. In relativistic nucleus-nucleus collisions, which are the type of collisions relevant for GCR interactions, light ions are produced from both strong and electromagnetic forces. Electromagnetic dissociation (EMD) is the process whereby a virtual photon from one nucleus knocks out a particle from the other nucleus. Therefore, in predicting space radiation environments one must include a correct description of alpha production via EMD. A calculation of this process, using a theoretical photonuclear model, is presented and compared to experimental data.

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