NEW CALCULATION OF RADIOACTIVE SECONDARIES IN COSMIC RAYS

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Secondary nuclei in cosmic rays provide a useful tool to probe a large-scale Galactic structure, such as the diffusion coefficient and halo size, as well as mechanisms and sites of cosmic ray acceleration. We use a new numerical model of particle propagation in the Galaxy (GALPROP), to study cosmic-ray propagation in 2D or 3D, including a full nuclear reaction network. Our calculation employs a new evaluation of the production cross sections of radioactive isotopes of Al, Cl, Mn and CROSEC code for total inelastic cross sections. The results will be reported during the conference. This study was partially supported by the U. S. Department of Energy.