

Abstract Submitted
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Testing Solar Energetic Particle Origin and their Correlations with γ -ray Flares Using COMPTEL CHRISTOPHER WING, None — Impulsive solar particle events, which are short, electron-rich, enriched with ^3He , are thought to originate from magnetic reconnections low in the corona. During a flare, particles either react in or escape the solar atmosphere, but in any event leave signatures in the form of neutral radiation and in-situ observations. Particles which travel back on closed magnetic field lines may emit γ -rays as a result. They can be measured by the solar detector COMPTEL. Electrons produce hard X-ray emission and leave signatures of escape in Type III radio burst emission. The goal of this project is to find out whether small impulsive flares are related to the small ^3He -rich SEPs observed in-situ, using the highly sensitive COMPTEL instrument. The relationship between Gamma Ray Lines (GRL's) and solar energetic particles (SEP) would help us understand where flare particles are accelerated, and how they escape into the interplanetary medium.

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None

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