

Gamma Ray Measurements of the 1991 November 15 Solar Flare

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The 1991 November 15 X1.5 flare was a well observed solar event. Comprehensive data from ground-based observatories and the Yohkoh spacecraft provide the basis for a contextual interpretation of gamma-ray spectra from the Compton Observatory. In particular, spectral, spatial, and temporal data at several energies or wavelengths are necessary to understand the particle dynamics and the acceleration mechanism(s) within this flare. X-ray images, radio, Ca XIX data and magnetograms provide morphological information on the acceleration region, while gamma-ray spectral data provide information on the photon energy spectra. Furthermore, time profiles in hard X-rays and gamma-rays provide valuable information on temporal characteristics of the energetic particles. We report the results of our analysis of the evolution of this flare as a function of energy (50 keV - 10 MeV). These results, together with those from Yohkoh (14 - 100 keV) may assist in identifying and understanding the acceleration mechanisms(s) taking place in this event.