VARIABLE ABUNDANCE OF ENERGETIC HE^+ IN CME RELATED SEP EVENTS

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Several CME related SEP events with unusually high abundance in He^+ in the energetic particle population have been observed between 1998 and 2000 with ACE SEPICA and SOHO CELIAS. Whereas usually the abundance of He^+ is below a few percent, at times the He^+/He^{2+} ratio can be close to one. Possible sources for He^+ are interstellar pickup ions or cold solar ejecta in CMEs. We will study the spatial and energy distributions of He^+ in these CME events in a search for clues indicating the relative importance of the respective sources. In addition the abundance of He^+ is expected to vary depending on where the major acceleration occurs, i.e. close to the sun or mainly locally close to the observer.