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The active Sun and its implication for the heliosphere  
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## **Evolution of Seed Particle and Solar Energetic Particle Abundances**

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A variety of data from solar cycle 23 have shown that CME-driven shocks accelerate primarily suprathermal ions rather than bulk solar wind. This is most easily demonstrated by comparing the composition of solar energetic particles (SEPs) with that of interplanetary suprathermal ions. Using data from ACE, GOES, SOHO, and STEREO we report on a study that looks at long-term trends in the composition of suprathermal tails and solar energetic particles including data from the years 1998 to 2011, focusing on data from 2007-2011. We observe significant variations in several elemental abundance ratios which we attempt to relate to the sources of these ions.