

# **Pickup ion acceleration in the solar wind observed by SOHO/CELIAS**

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Injection into the solar wind gives interstellar pickup ions a non-maxwellian distribution allowing preferential injection into acceleration mechanisms. Interplanetary shocks and compressions, as well as quiet-time processes such as stochastic acceleration, create suprathermal tails on observed pickup ion velocity distributions. However, the dynamic nature of the solar wind makes measurement of the relative importance of acceleration mechanisms difficult. In the inner heliosphere, these particles are diffuse enough to be effectively test particles in the solar wind. This allows us to use pickup ion observations as a test of particle energization theories. We present a survey of SOHO/CELIAS data taken during solar minimum, allowing comparison of acceleration rates to shock parameters, turbulence parameters, and solar wind parameters.