

Information on Particle Acceleration Derived from Solar Flare Spectropolarimetric Observation

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Here we report the linear polarization of Ha, Hb and MgI lines observed in solar flares. This kind of polarization has been interpreted as “impact polarization” due to the collisional excitation of hydrogen in chromosphere by particle beams accelerated in the corona with an anisotropic velocity distribution. Information about the nature and energy range of accelerated particles, as well as their spatial distribution and time variation, is also discussed here obtained from this kind of plasma polarization spectroscopy.