

A14r **White-light flares observed by Hinode/SOT**

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In association with solar flares, we sometimes observe enhancements of visible continuum radiation, which is known as a "white-light flare". Such flares are mainly associated with energetic events, such as X-class flares, and they are still rarely observed since first being discovered about 150 years ago. Because many observed events show a close correlation between the time profiles and locations of white-light emission, and the hard X-rays and/or radio emission, there is some consensus that the origin of white-light emission is due to accelerated particles, especially non-thermal electrons. So, during such big flares which have white-light emission, huge amounts of electrons are accelerated to high energies, and there is a possibility that flare accelerated particles affect the Earth.

Hinode/SOT has the capability of observing white-light flares in the *G*-band (4305 Å) and continuum (Blue: 4505 Å, Green: 5550 Å, Red: 6684 Å) with a broadband filter. Using the Hinode Flare Catalog (Watanabe et al., 2012), we searched for white-light events using *G*-band and continuum data. We found more than 20 Hinode/SOT white-light events in association with M-class or larger flares between launch (September 2006) and October 2012. We compared the emission data with the strength of the photospheric magnetic fields and looked for any relationship between them.

In this paper we present a statistical analysis of the Hinode/SOT white-light events, and discuss the flare parameters and origin of the white-light emission.