

## Imaging Spectroscopic Study of EUV Bright Points in the AR 10926 by Hinode/EIS

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We have investigated seven Extreme-Ultraviolet (EUV) bright points in the active region (AR 10926) on 2006 December 2 by the EUV imaging spectrometer (EIS) onboard Hinode spacecraft. We determined their Doppler velocities and non-thermal velocities from 15 EUV spectral lines ( $\log T=4.7-7.2$ ) by fitting each line profile to a Gaussian function. We present the Doppler velocity map as a function of temperature which corresponds to a different height. As a result, these active region bright points show two different types of characteristics. Type 1 bright point shows a systematic increase of Doppler velocity from -68 km/s (blue shift) at  $\log T=4.7$  to 27 km/s (red shift) at  $\log T=6.7$ , while type 2 bright points have Doppler velocities in the range of -20 km/s and 20 km/s. Using MDI magnetograms, we found that only type 1 bright point was associated with the canceling magnetic feature at the rate of  $2.4 \times 10^{18}$  Mx/hour. When assuming that these bright points are caused by magnetic reconnection and the Doppler shift indicates reconnection out flow, the pattern of the Doppler shift implies that type 1 bright point should be related to low atmosphere magnetic reconnection. We also determined electron densities from line ratio as well as temperatures from emission measure loci using CHIANTI atomic database. The electron densities of all bright points are comparable to typical values of active regions ( $\log Ne=9.9-10.4$ ). For the temperature analysis, the emission loci plots indicate that these bright points should not be isothermal though background is isothermal. The DEM analysis also show that while the background has a single peak distribution (isothermal), the EUV bright points, double peak distributions.

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