temporal variation of the plasma properties in the bright kernel in the chromosphere and corona. We found that explosive evaporation was observed when the WLF occurred, even though the intensity enhancement in hotter lines is quite weak. The temporal correlation of the WLF, HXR peak, and evaporation flows indicates that the WLF was produced by accelerated electrons. To understand the white light emission processes, we calculated the deposited energy flux from the non-thermal electrons observed by RHESSI and compared it to the dissipated energy estimated from the chromospheric lines (Mg II triplet) observed by IRIS. The deposited energy flux from the non-thermal electrons is about 3.1 x 10^{10} erg cm^{-2} s^{-1} when we assume a cut-off energy of 20 keV. The estimated energy flux from the temperature changes in the chromosphere measured from the Mg II subordinate line is about 4.6 - 6.7 x 10^{9} erg cm^{-2} s^{-1}, 15 - 22 % of the deposited energy. By comparison of these estimated energy fluxes we conclude that the continuum enhancement was directly produced by the non-thermal electrons.

[포 SS-04] A Possibility of Modulating the Geomagnetic Field by the Solar Eclipse

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The solar eclipse affects terrestrial environments in various aspects. For instance, it is well known that the electron concentration and current density decrease in the ionosphere due to the reduction of solar irradiation during solar eclipse. In this study, we carry out the statistical analysis of x, y, z, H-components, and the intensity of the geomagnetic field using the ground based geomagnetic data observed during the solar eclipses from 1991 to 2016. First, we confirm that characteristic decreases in the x and H-components can be seen in the vicinity of the maximum eclipse time at the observing site. Second, we find that the decrease in x and H-components is more conspicuous during the total solar eclipse rather than the partial or annular eclipses. We also find that such a dip is likely to be noticed when the observing site locates in the second half compared to the first half of the eclipse path, as well as when the eclipse occurs in dusk side than in dawn side. Third, we find that reductions in the ground geomagnetic field by the solar eclipse are more evident in the ascending phase of the solar cycle than in the descending phase. Finally, we briefly discuss implications of our findings.