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## 陽光 BCS による硫黄輝線を用いた太陽活動領域コロナの観測

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We present the first high resolution soft X-ray spectral observations of the corona above an active region, using the Bragg crystal spectrometer (BCS) on board the *Yohkoh* satellite. Our data are from a time when the active region, NOAA AR 7978, had rotated beyond the solar limb so that the lower portions of the region were occulted. Long integrations from times after the region had totally disappeared some days later show a substantial, variable background in S xv. Since the background spectrum is featureless, spectral lines obtained from the time of occultation must originate from the upper corona of the active region. Our results support previous findings that the corona consists of two components: a cooler, steady component with  $T_e \approx 3$  MK, and a hotter, transient component in excess of 5 MK. This hotter component is due to microflares; outside the time of microflares there is relatively little or no active region upper coronal plasma with  $T_e \gtrsim 3.5$  MK. There is evidence for a decrease in  $T_e$  with height for the cool component. Because of the spatial extent of the emitting source, we cannot determine the contribution from physical processes to the non-thermal line broadening in the non-microflaring corona.