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Comparison of the active regions associated with the X-class and C-class flares

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Besides C-class flares, a series of X-class flares took place in the active region AR 0486 during the October-November 2003. On the other hand, completely different from AR 0486, AR 9934 produced lots of microflares (< C8) during the first half of May 2002 without the production of any large flare (M- or X-class) during its disk passage. The characteristics of these two specific active regions, AR 0486 and AR 9934, are investigated in this study. The MDI magnetogram is used to track the flare-related flux variations in these two regions, especially when they are close to the disk center. The EIT, TRACE, and the ground-based $H\alpha$ observations are used to differentiate the evolutions of magnetic morphology during their disk passages. By combining with the RHESSI data, the positions and characteristics of energy release for these associated flares could be identified. The results from multi-wavelength measurements will be presented in this study.