

Observing the Sun with X-ray Multilayers: Past, Present and Future

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The solar corona is a million-degree gas around the Sun, with primary emission in the soft x-ray region of the spectrum. XUV multilayers have proven extremely useful for high spatial resolution imaging applications with moderate spectral resolution. They have flown on sounding rockets and satellites, the latest being TRACE with 0.5 arcsec pixel size and coatings tuned to 173A, 195A and 284A (Fe IX/X, Fe XII and Fe XV). Future applications may include the U.S./Japan Solar-B mission, which combines a large optical telescope with a moderate-size XUV imager, and the HIREX mission, which has a goal of reaching 0.01 arcsec pixel resolution.