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Observing Particle Acceleration with RHESSI

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The Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI) was designed to study particle acceleration in solar flares by imaging spectroscopy of both bremsstrahlung from electrons and nuclear lines from ion interactions. I will review several of the major results of these studies since the launch of RHESSI in February 2002. RHESSI's x-ray and gamma-ray detectors are also being used to study electrons accelerated to high energies in other sites, such as the Crab nebula and thunderclouds on Earth; I will review the status of these observations as well.