

SORCE SIM Instrument Highlights for Middle Ultraviolet, Visible, and Near Infrared

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The SORCE Solar Irradiance Monitor (SIM) instrument has played an important part in our understanding of the nature of solar spectral variability and how these variations affect the Earth climate system. SORCE SIM was the first instrument to provide an uninterrupted record of daily solar variability in the visible and infrared spanning the descending phase of Solar Cycle 23 and Cycle 24 maximum, and is now concluding its 17-year mission in Cycle 24/25 minimum. Over its full operating range, SIM observed the solar spectral variability of about 97% of the total solar output. Herein we briefly discuss the highlights of the SORCE SIM: 1) its reported solar variability over the full wavelength range, 2) its importance to modeling solar activity, 3) its importance as input to Sun-Earth climate modeling, and 4) the innovative technological advances made in the development of the SIM that have been passed on to the next generation of solar spectral radiometers.