Development of soft X-ray imaging spectrometer for proposed future space-borne Indian mission

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We present the scientific and technical aspects of proposed high resolution soft X-ray imaging spectrometer for future space-borne Indian spacecraft. We briefly describe the science objectives of the mission and propose that this experiment may improve our current understanding on quiet and active solar corona and the energy release and particle acceleration mechanisms in solar flares. The proposed energy band is 0.1 to 10 keV for high spatial, spectral and temporal imaging. Currently various design are considered in view of scientific and technical requirements and are being analyzed. We discuss both normal incidence and grazing incidence techniques and the current status of the experiment.