

Current status of development of x-ray spectrometer (XRS) onboard Selene

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We present the current status of development of CCD-based x-ray fluorescence spectrometer (XRS) onboard Selene. The XRS will map the major elements with spatial resolution of 20 km, except for the lunar polar regions. This is the first use of x-ray CCD in the planetary mission. CCD shows several times higher energy resolution than proportional counter when used below 235K. Array of CCD chips makes a large detection area. A thermal and mechanical design of the XRS was performed in detail, as well as the electronics. Evaluation tests of the XRS was performed using a protomodel atop the S310-28 sounding rocket experiment.