Development of ultra-thin window for the XRS instrument

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We are developping an ultra-thin window for onboard X-ray fluorescence spectrometer to effectively pass soft x-rays. By using beryllium foil of 5 micron thick as the window, the transparency of x-rays much improves by factor of two to ten in soft x-ray region. We made an apparatus to produce x-ray window by starching a thin beryllium foil to stainless-made meshed grid in vacuum and high temperature condition. We report the performance of the x-ray window in transparency of soft x-rays and in severe acoustic condition at launch.