



Development and calibration of the low-energy ion spectrometer (LEIS) instrument

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The low-energy ion spectrometer (LEIS) instrument is the first space plasma detector developed by University of Science and Technology of China. The instrument, which is designed to determine the velocity distribution of all major solar-wind ions, covers an energy per charge range from 0.3 to 18 keV/e. It combines an electrostatic analyzer with post-acceleration, followed by a microchannel plate (MCP) electron multipliers and position encoding discrete anodes. A calibration facility for LEIS, including high vacuum, ion beam and 4-axis positioning systems, is also developed. And the results of the calibration experiments for LEIS are consistent with the results of ion optics simulations.