Abstract *(paper not available)*

Front-End and High-Voltage Electronics Developments for Compact, Dual Ion-Electron Thermal Measurements

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The Active Monitor Box of Electrostatic Risks (AMBRE) is a double-head thermal electron and ion electrostatic analyzer (~0 – 30 keV) that will be launched onboard the Jason-3 spacecraft in 2015. The new generation AMBRE instrument (AMBRE_NG) constitutes a significant new evolution that will be based on a single head with newly developed sub-systems to reduce all instrument resources. We will describe the main front-end and high-voltage electronics developments which are being made to perform such dual ion-electron measurements. The first purpose of AMBRE_NG is the monitoring of spacecraft charging and of the plasma populations at the origin of this charging. The design is also appropriate for the study of space plasma processes in the Earth's magnetosphere, as well as at other planets where time resolution may not prevail over mass constraints.

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