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Poster
With 25 years of experience in space weather instrumentation, Aboa Space Research Oy (ASRO) has developed a novel suite of four Radiation Monitors. These instruments are specifically designed for comprehensive space weather monitoring, a critical aspect of understanding the near-Earth environment and ensuring the safety and functionality of space missions tailored to the New Space era.
Each instrument in ASRO's product family has a compact design suitable for nanosatellite platforms, with weights between 0.5 and 1.2 kilograms. Their detection capabilities include X-rays between 1 and 30 keV, electrons between 3.5 keV and 8 MeV, protons above 1 MeV, and alpha particles above 7 MeV/n with effective separation of particle species. ASRO's product family shares the unique benefits of a common back-end design based on flight proven heritage, and the possibility of merging two instruments into a 1U instrument. Furthermore, the instruments have tuneable sensor heads for different energy ranges, viewing angles and fluxes, making them suitable for a wide range of missions and orbits from Low Earth Orbit to interplanetary space.
ASRO provides these off-the-shelf instruments along with data analysis support services for various space weather service providers, scientific missions and research institutes. The data produced by these instruments is pivotal for elucidating space weather phenomena which helps scientists and engineers in predicting and mitigating potential repercussions on space travel, satellite operations and critical ground infrastructure.



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