



Development of the Kiel sensors for the EPD instrument onboard Solar Orbiter

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Solar Orbiter is ESA's next solar and heliospheric mission, planned for launch in January 2017 and approaching the Sun as close as 0.28 AU. One of Solar Orbiter's scientific questions is "How do solar eruptions produce energetic particle radiation that fills the heliosphere?". The Energetic Particle Detector (EPD) will provide key measurements for this and the other Solar Orbiter Science Objectives. The EPD suite consists of four sensors measuring electrons, protons, and ions from helium to iron, and operating at partly overlapping energy ranges from 2 keV up to 200 MeV/n. The EPD sensors are: SupraThermal Electrons, Ions, & Neutrals (STEIN), Suprathermal Ion Spectrograph (SIS), Electron Proton Telescope (EPT) and High Energy Telescope (HET). Besides, the EPD sensors share the Instrument Control Unit (ICU). The University of Kiel in Germany is the responsible for developing the EPT-HET, STEIN and SIS sensors and here we present the development status of those sensors focusing in the activities planned for the current phase C including the assembly and test of the Structural and Thermal Model (STM) and the Engineering Model (EM).