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Updates and Early Results from the Heavy Ion Sensor on Solar Orbiter

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The Solar Orbiter mission was launched in 2020 into an orbit that will explore the inner heliosphere. During its orbit, periods of quasi-corotation with the Sun will enable determination of the source regions on the Sun for solar wind structures. The Solar Wind Analyser (SWA) is a suite of instruments that provide in-situ measurements of solar wind electrons, protons, alpha particles, and heavy ions. The SWA-Heavy Ion Sensor (HIS) is optimized to measure heavy ions in the solar wind, pickup ions, and suprathermal ions in an energy range spanning from 0.5- 75keV/e. We present measurements of heavy ion composition from SWA-HIS taken during the cruise phase of the mission to highlight the capabilities of the instrument and the observations we expect to collect over the next 10 years. We discuss how SWA-HIS will enable linkages between the Sun and the solar wind to reveal the nature of the acceleration and release of the solar wind and the sources and structure of the solar wind. We will also provide an overview of the available data and accessibility of the public datasets.