



CompAQS - A novel spectrometer for small air quality and climate monitoring missions in the UV and visible.

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A novel compact imaging UV/VIS spectrometer has been built and tested by a consortium of the University of Leicester, Surrey Satellite Technology Limited (SSTL) and Astrium UK as part of the UK's Centre for Earth Observation Instrumentation. This breadboard imaging spectrometer with a single-channel bandwidth of 300-450 nm demonstrates the capabilities of this compact design for remote sensing of air quality and climate parameters.

The optical efficiency and instrumental signatures of this compact spectrometer layout have been assessed with reference to potential implications on DOAS retrievals of key air quality and climate species (nitrogen dioxide, ozone and aerosol optical depth). This poster presents details of the spectrometer and the radiometric and spectral performance of the system. Potential advantages and applications of the compact air quality spectrometer (CompAQS) are discussed, with particular reference to future Earth Observation missions.