

SCIA Nadir observations of NO₂ and BrO

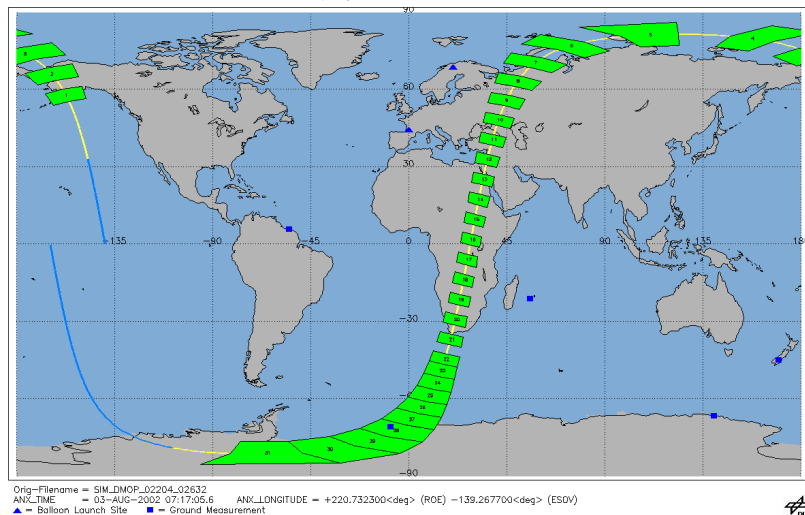
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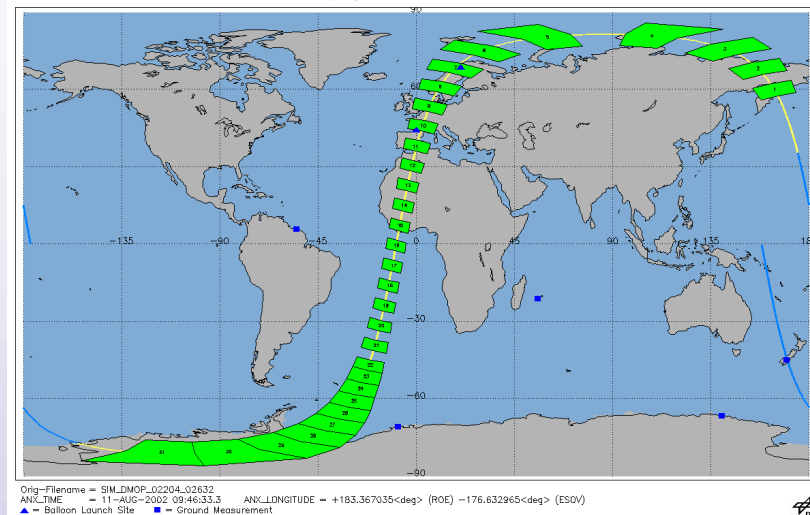


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INF 229, D-69120 Heidelberg, Germany*

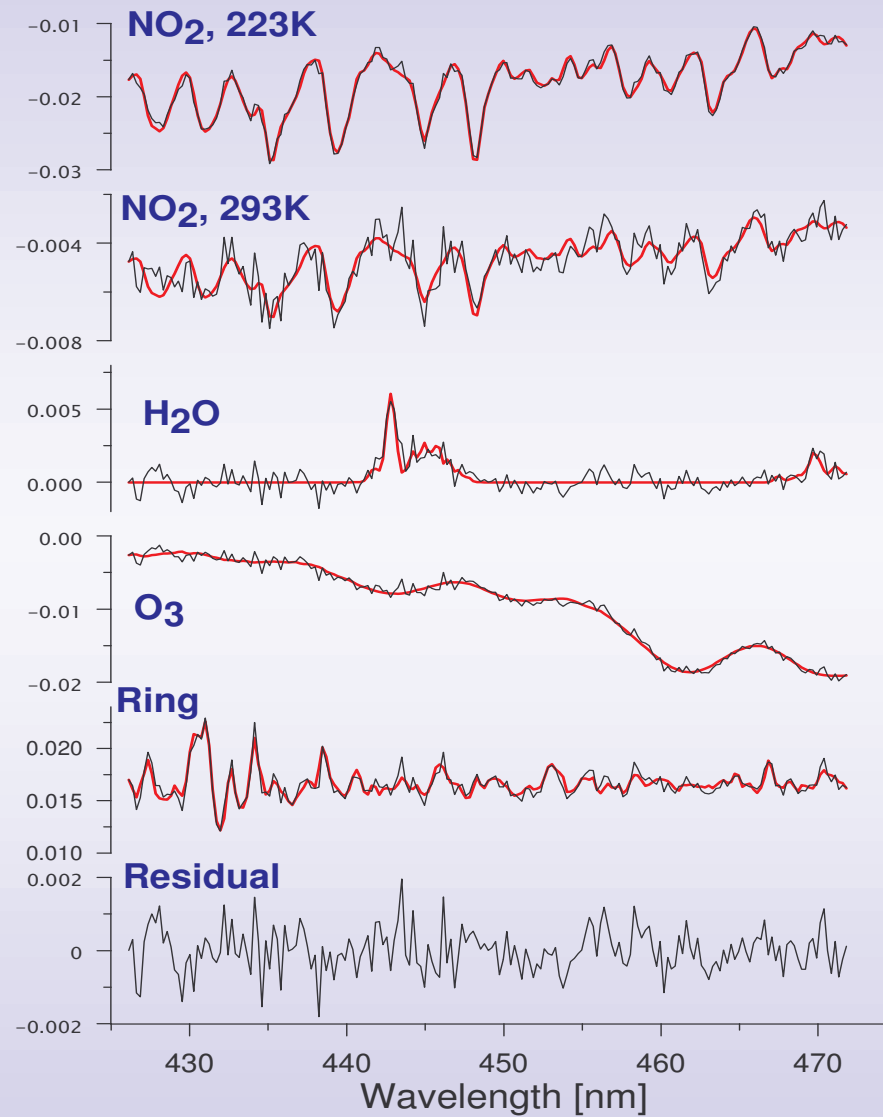
SCIAMACHY Swath Geolocation Display for Nadir in Orbit 02222



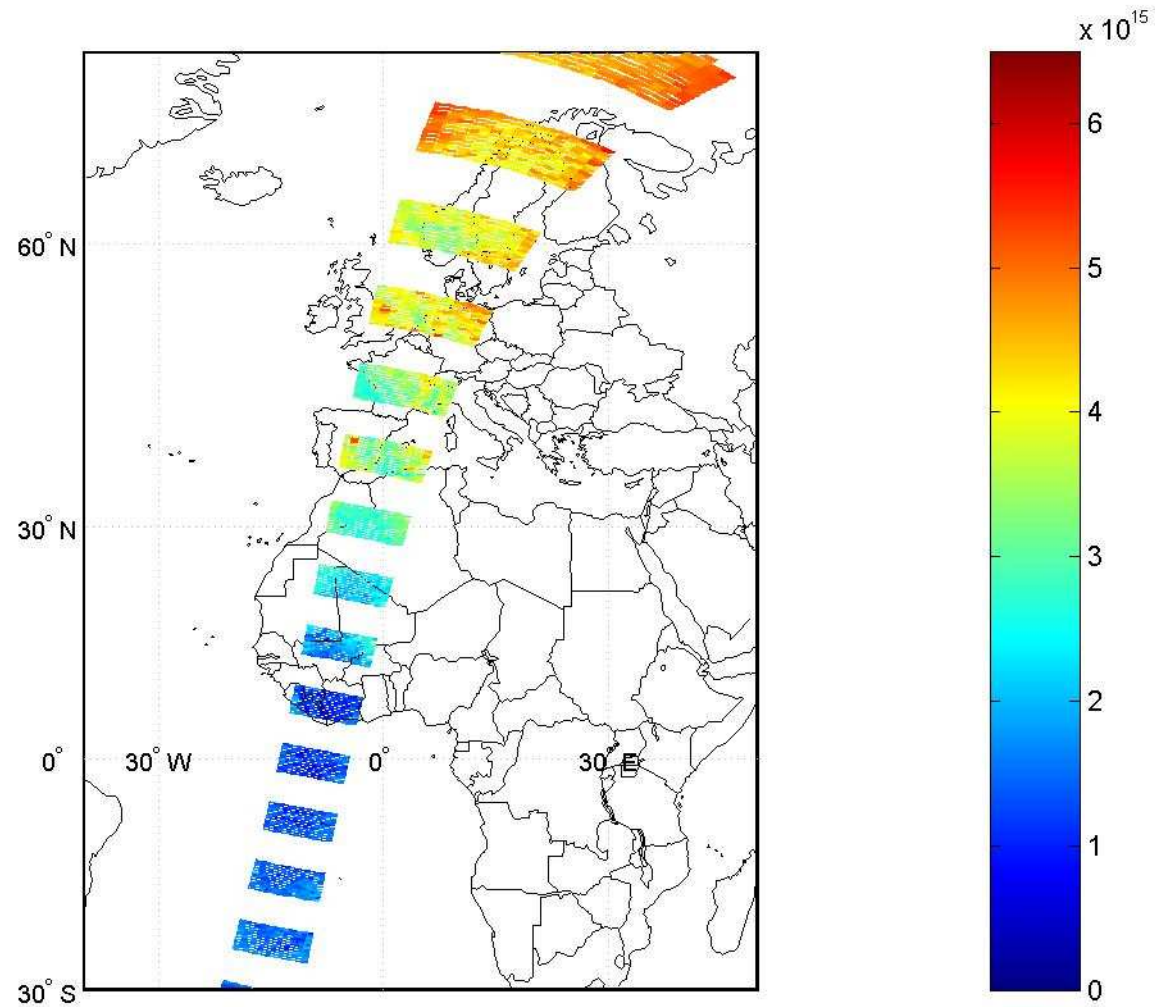
SCIAMACHY Swath Geolocation Display for Nadir in Orbit 02338



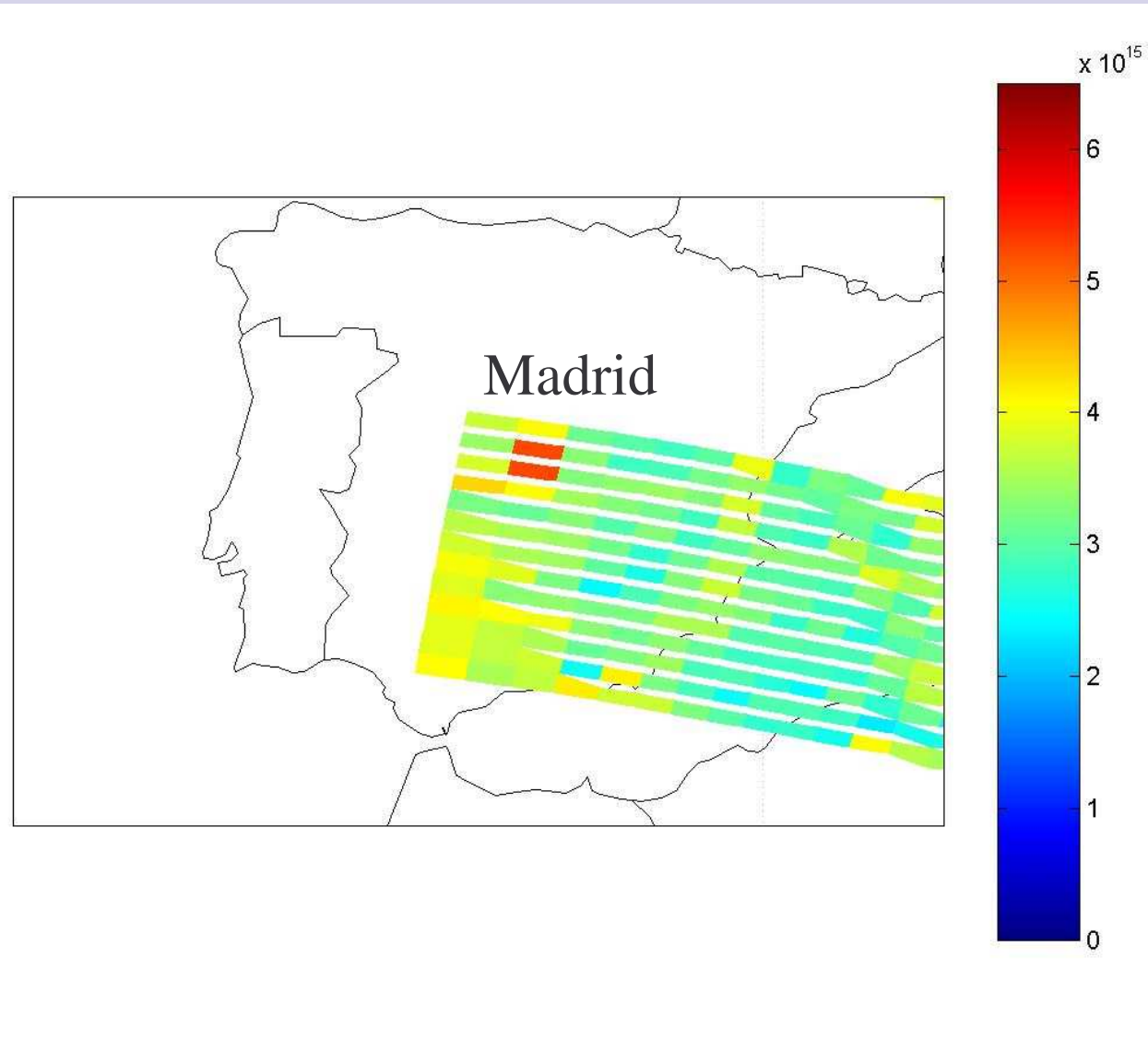
SCIAMACHY NO₂, 11.08.2002,
Lat: 71.0°, Long: 127.6°, SZA: 85.2°



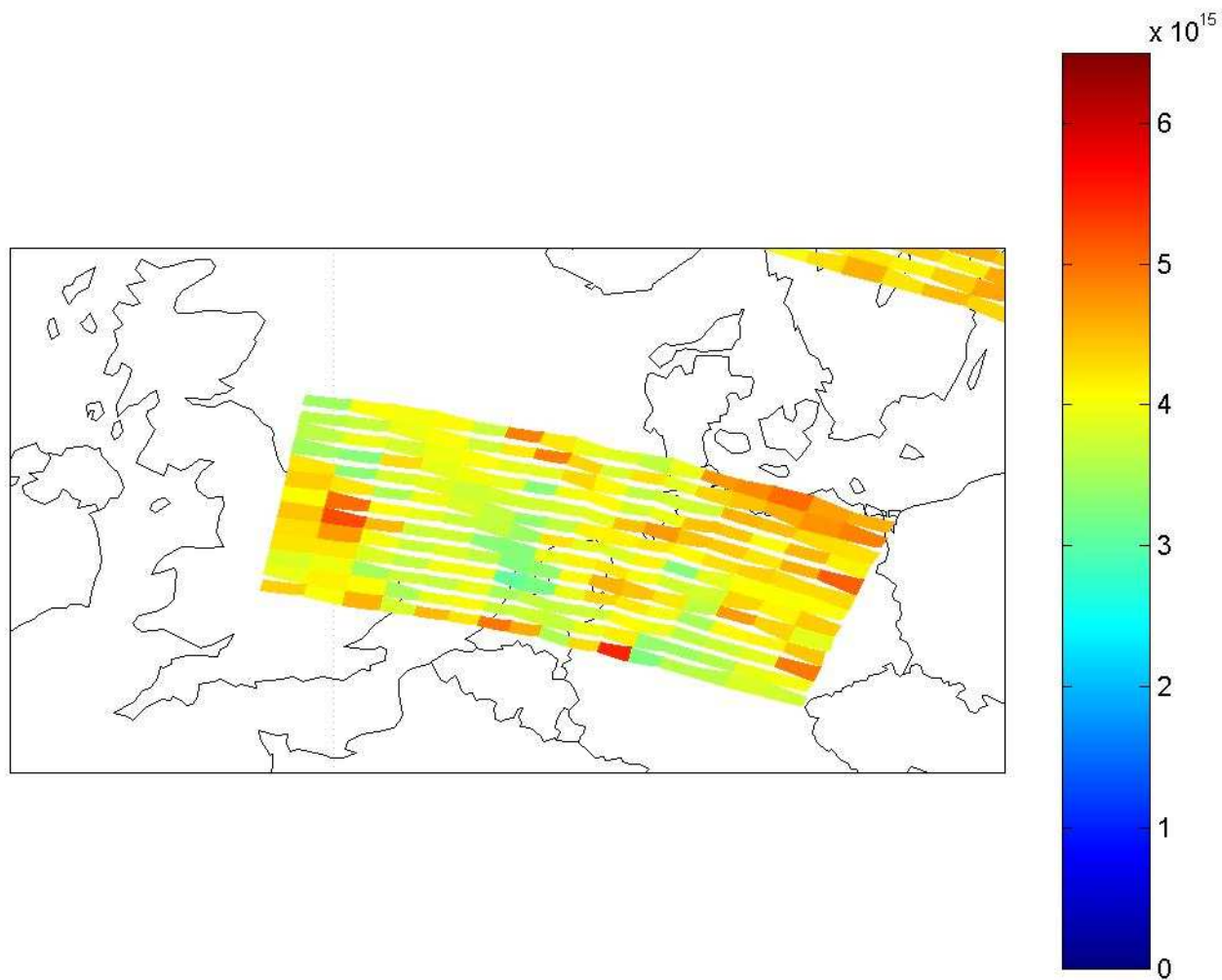
NO₂ VCD



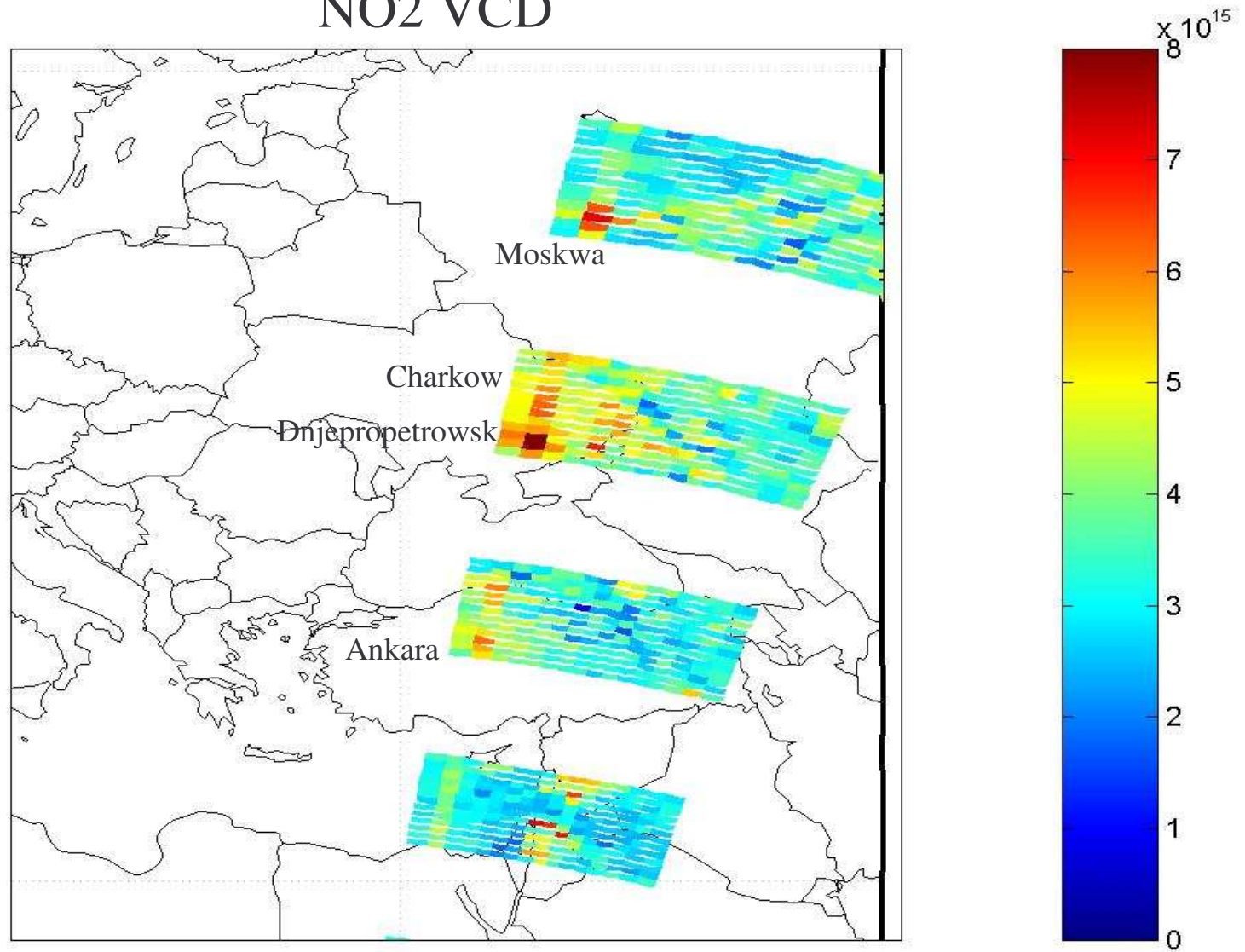
NO2 VCD



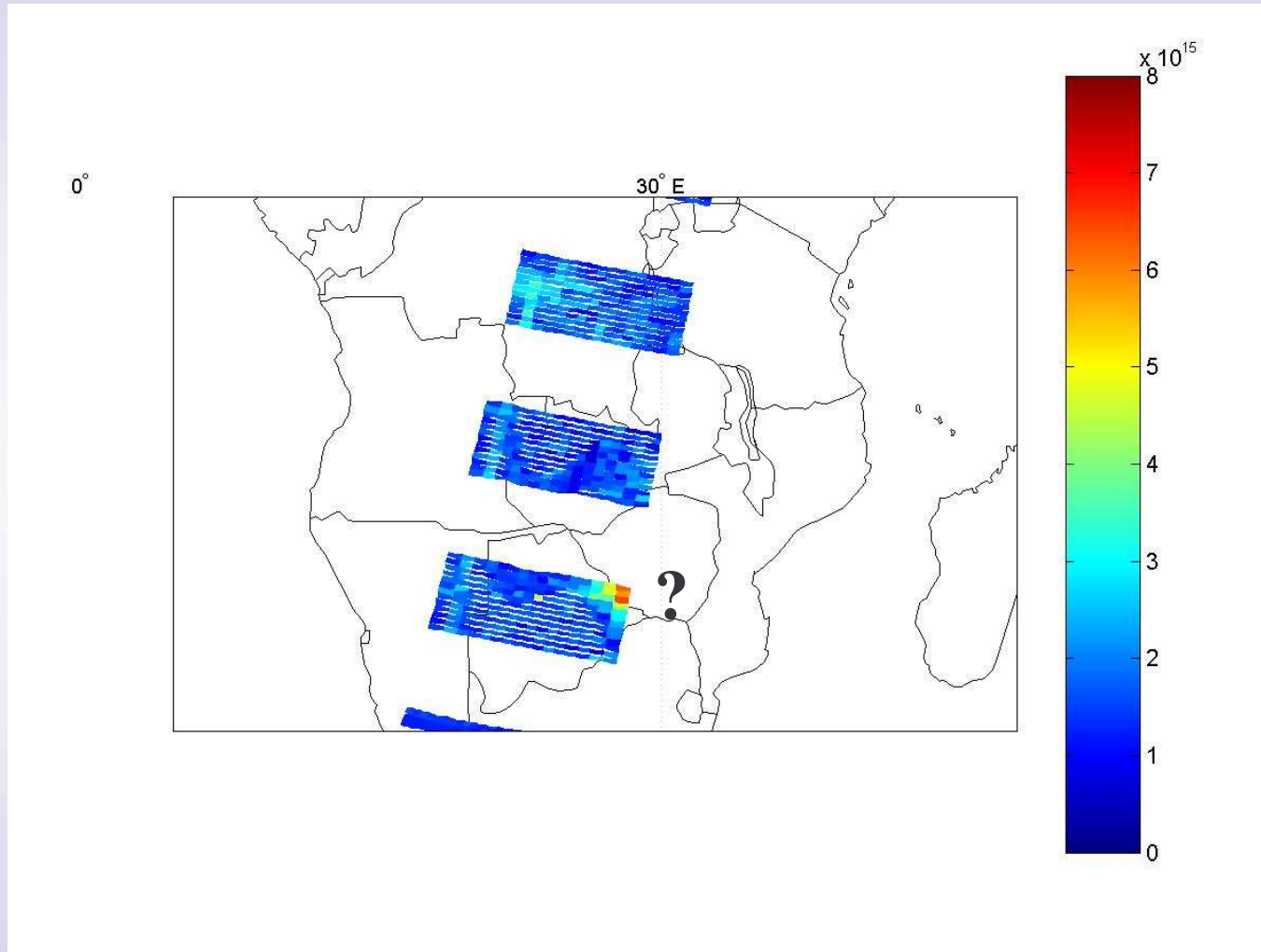
NO2 VCD



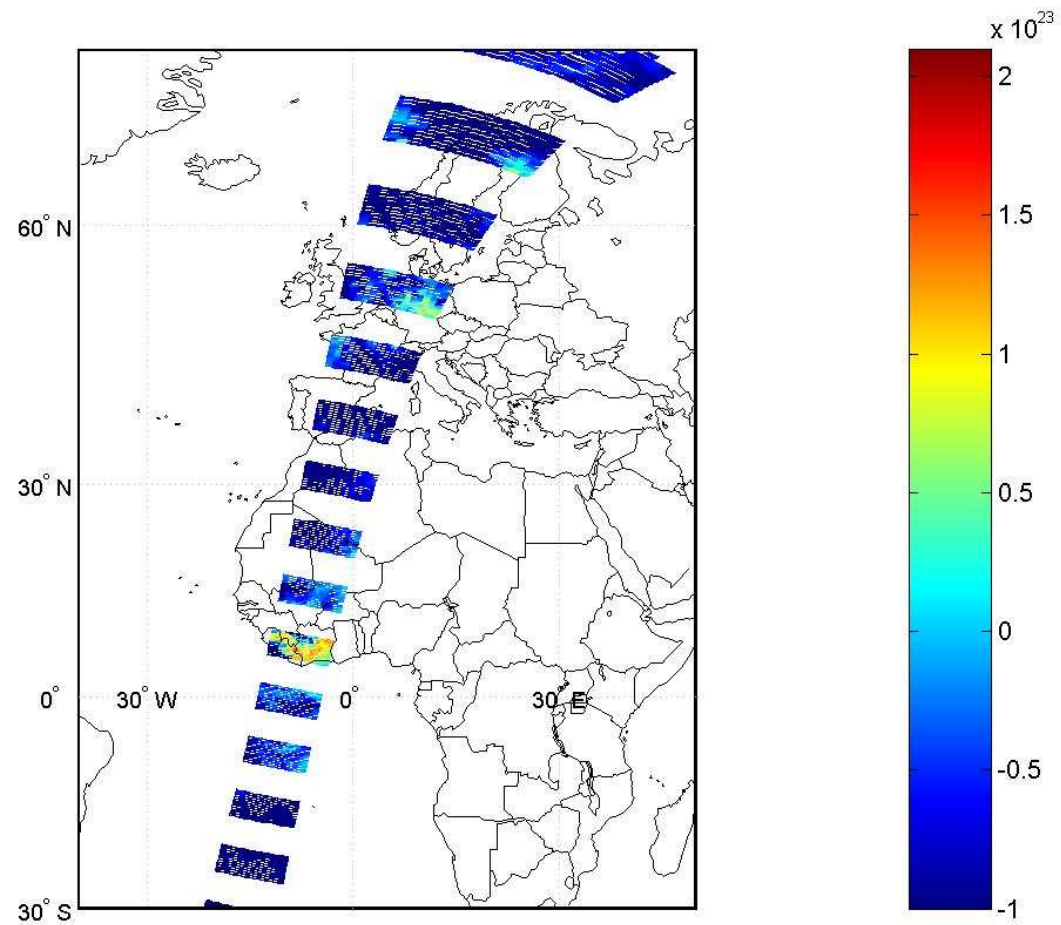
NO2 VCD



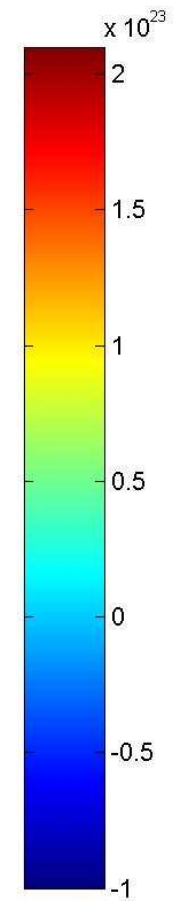
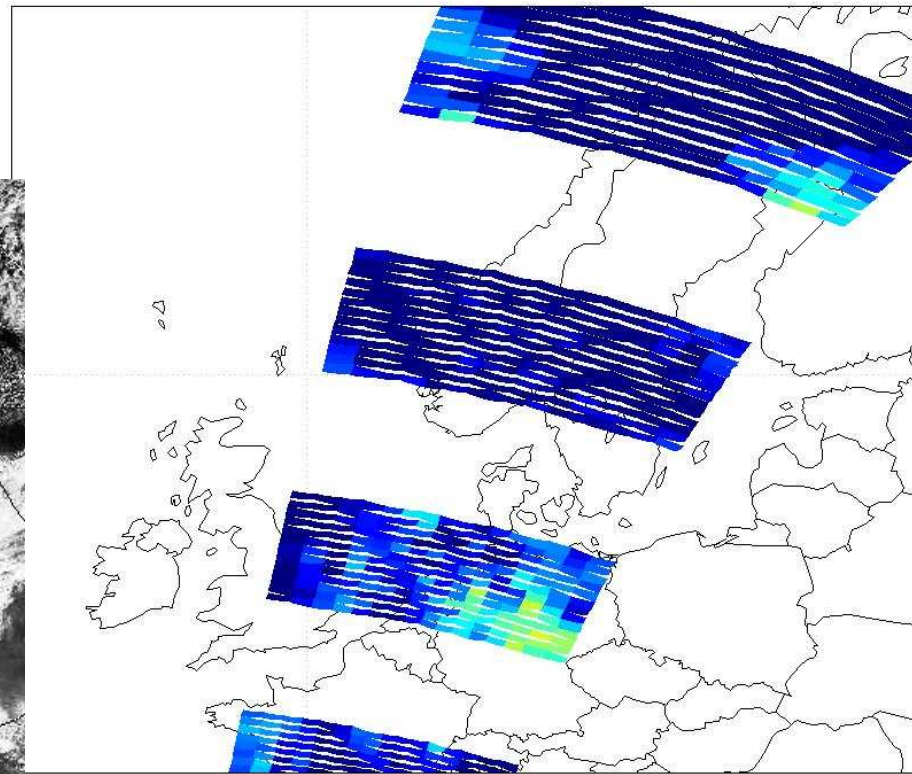
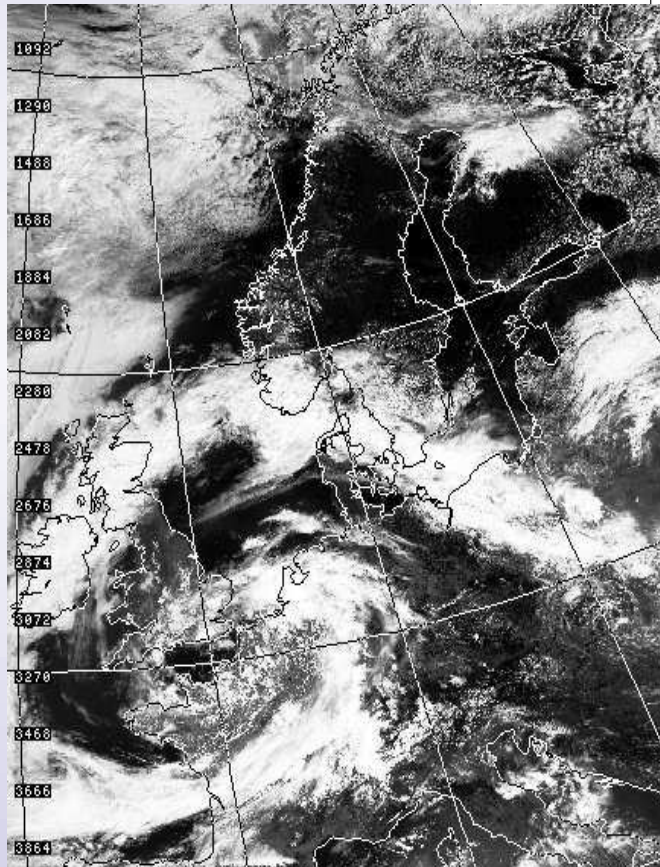
NO₂ VCD



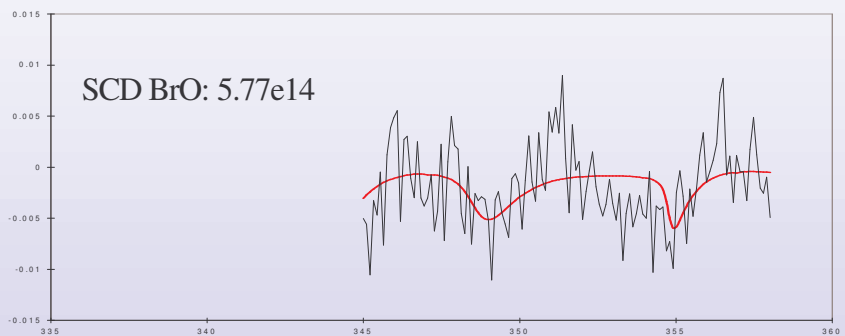
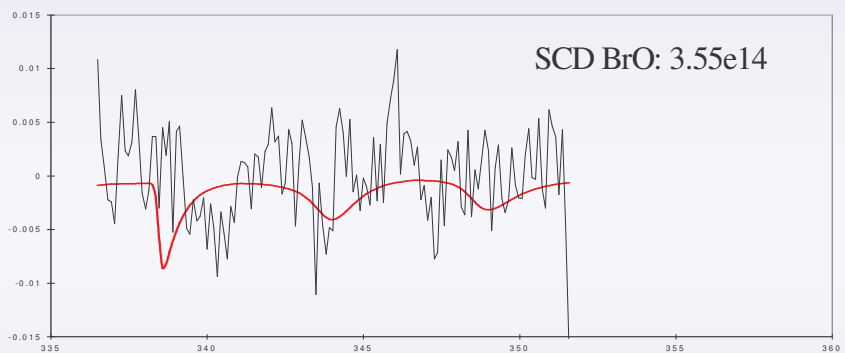
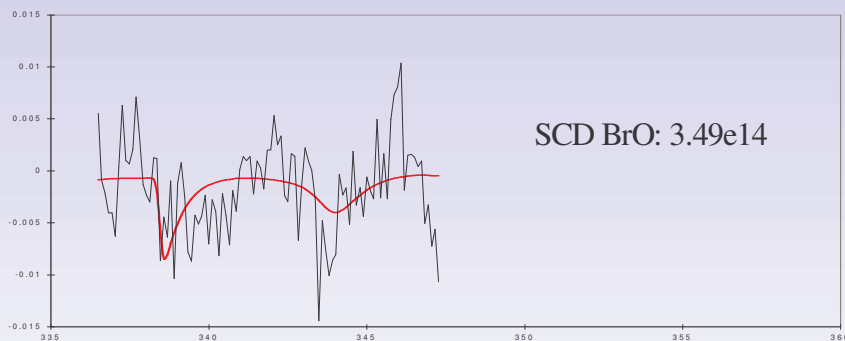
H2O SCD



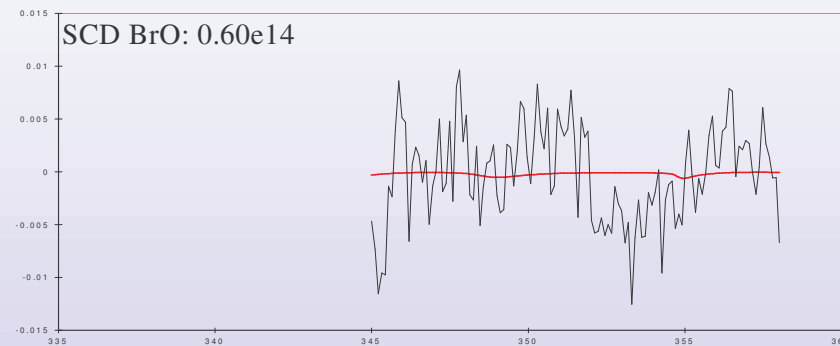
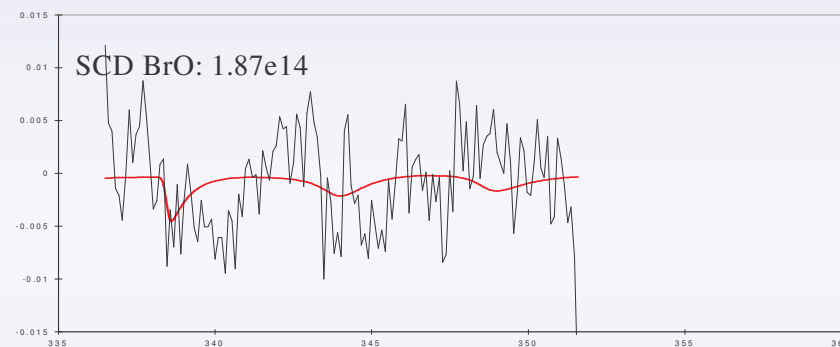
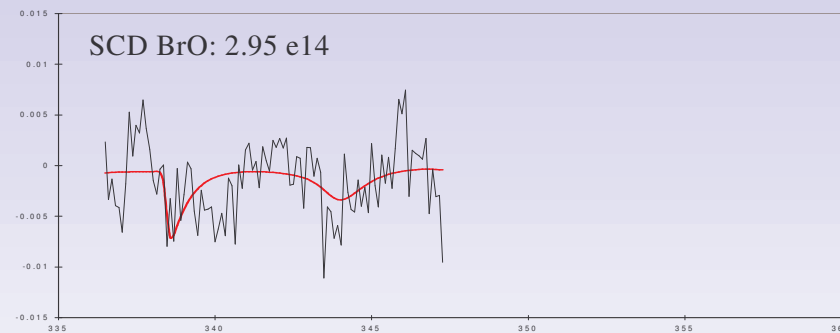
H2O SCD



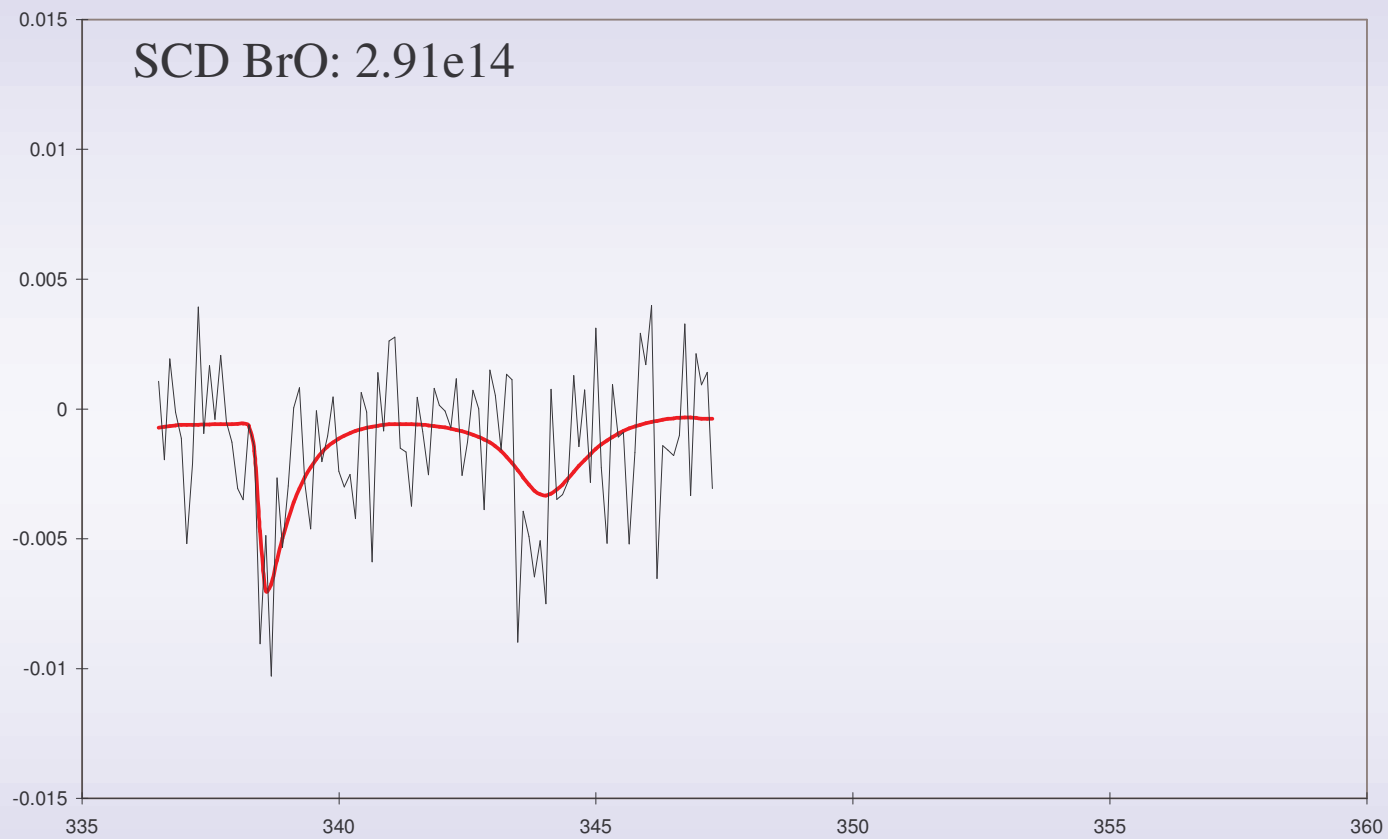
Pol. Degr. 3, Sun spectrum, all calibrations



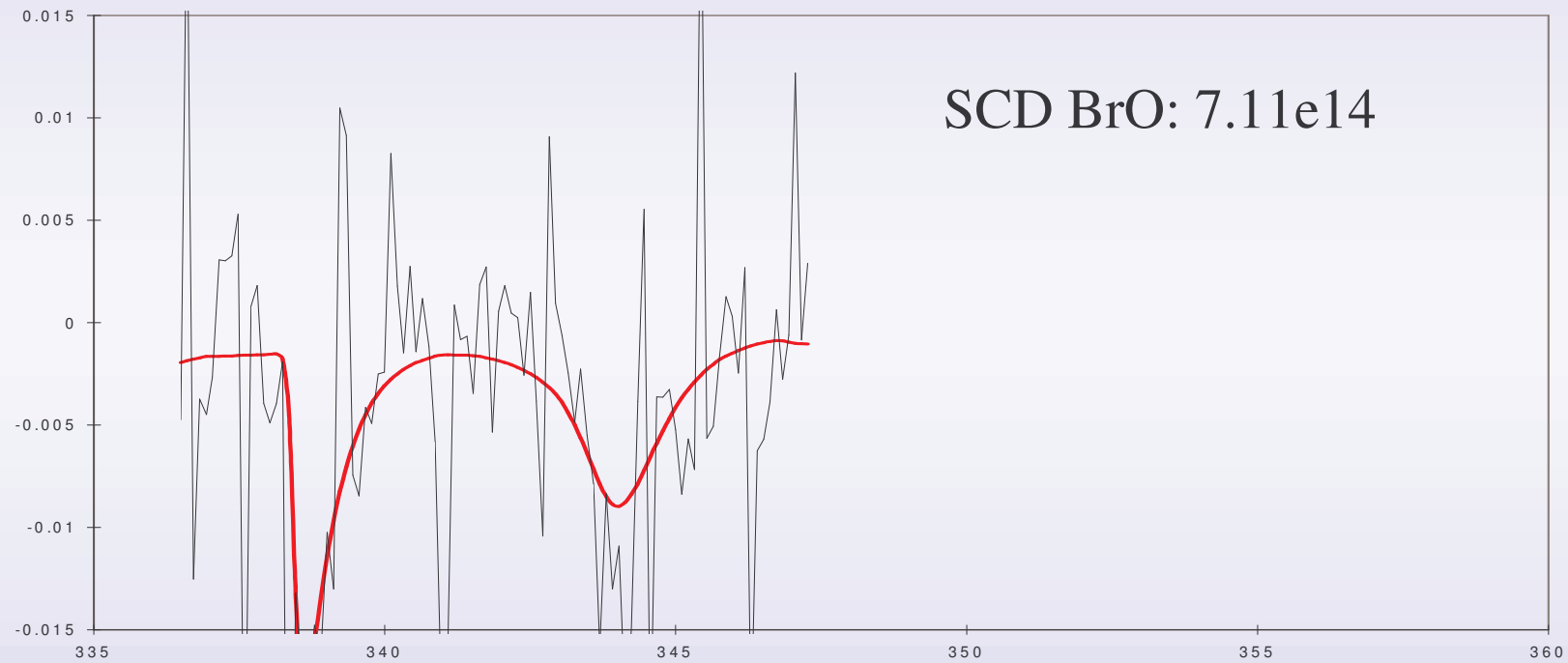
Pol. Degr. 3, Earth spectrum, all calibrations



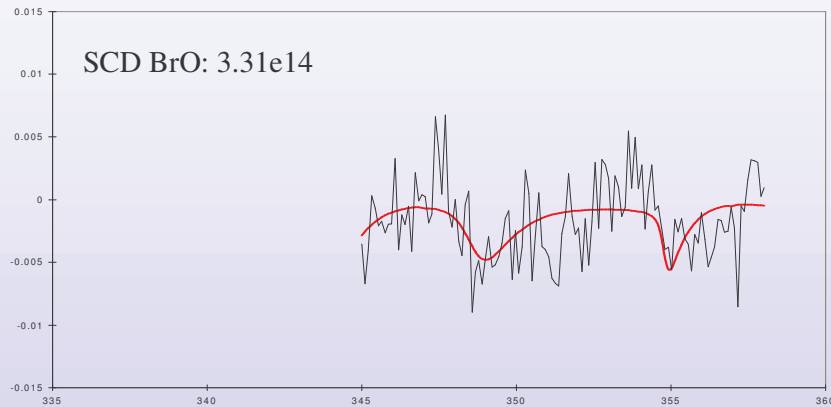
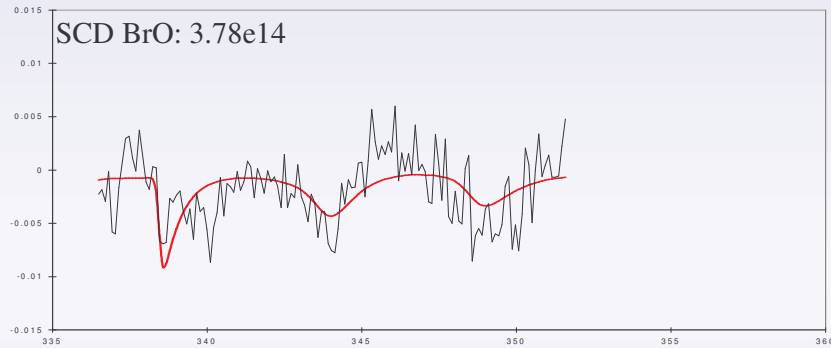
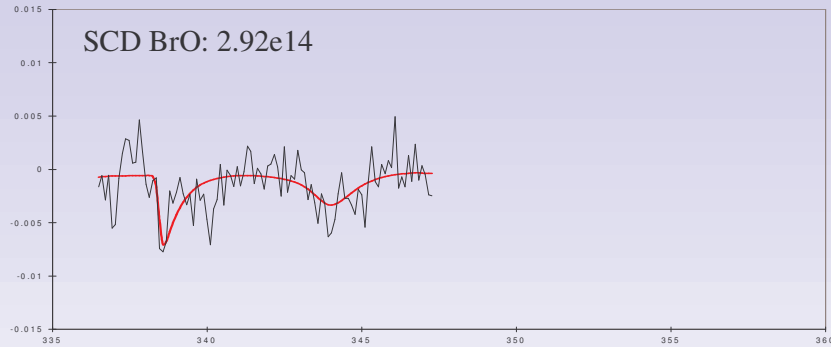
Pol. Degr. 9, Sun spectrum, all calibrations



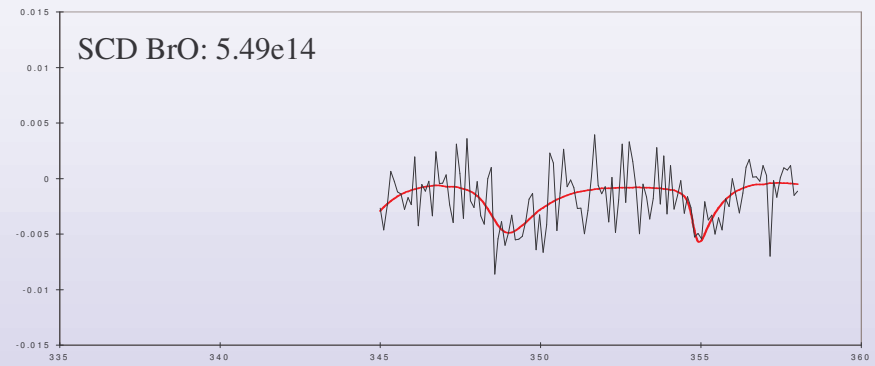
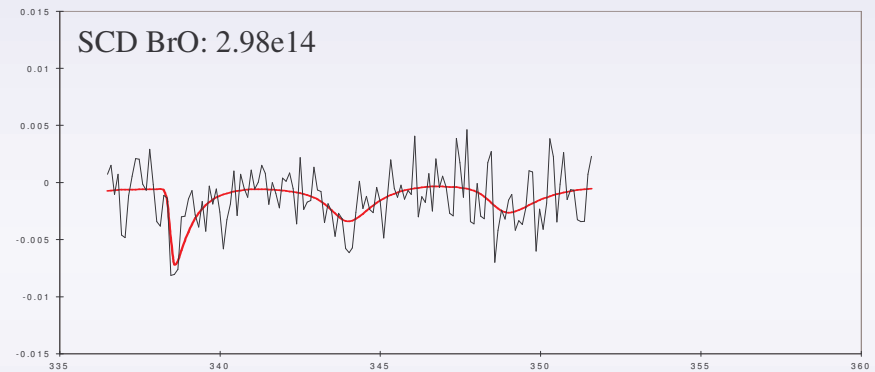
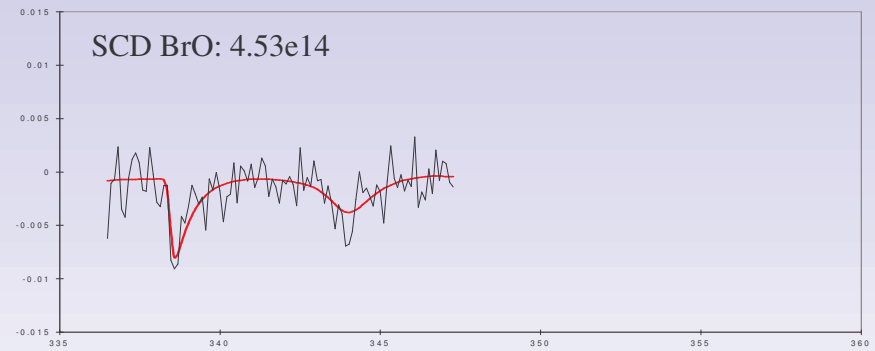
Pol. degr. 3, Sun spectrum, only dark current



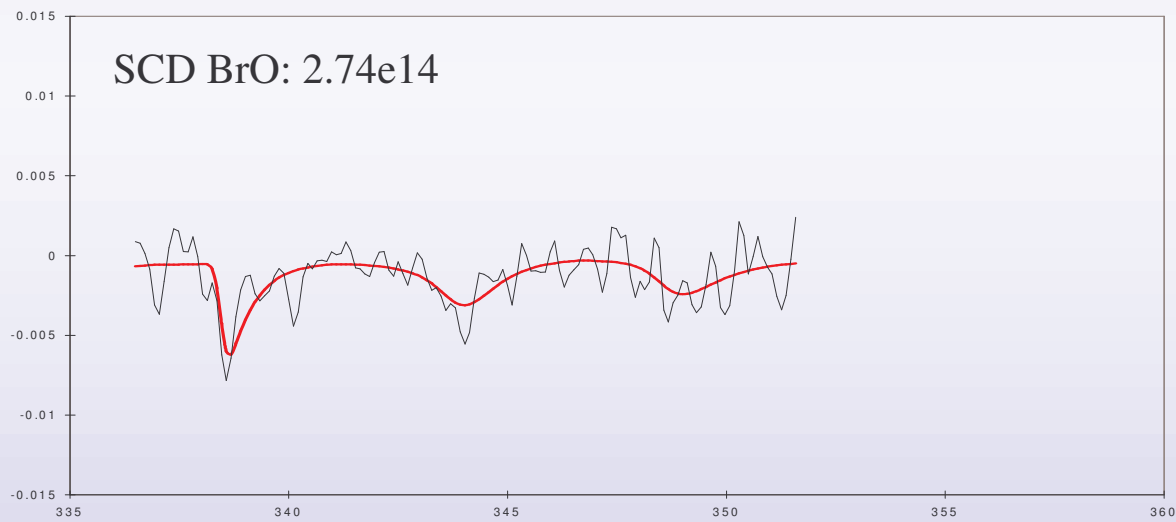
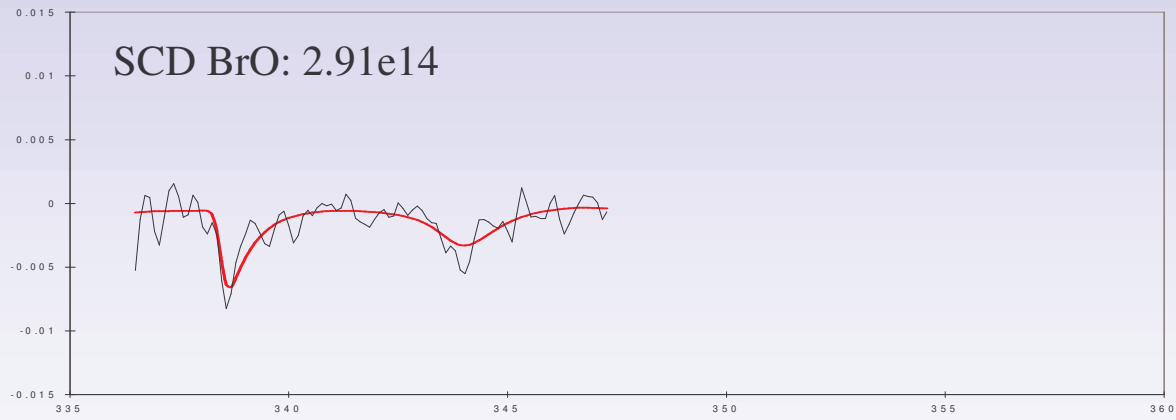
Pol. Degr. 3, Earth spectrum, only dark current



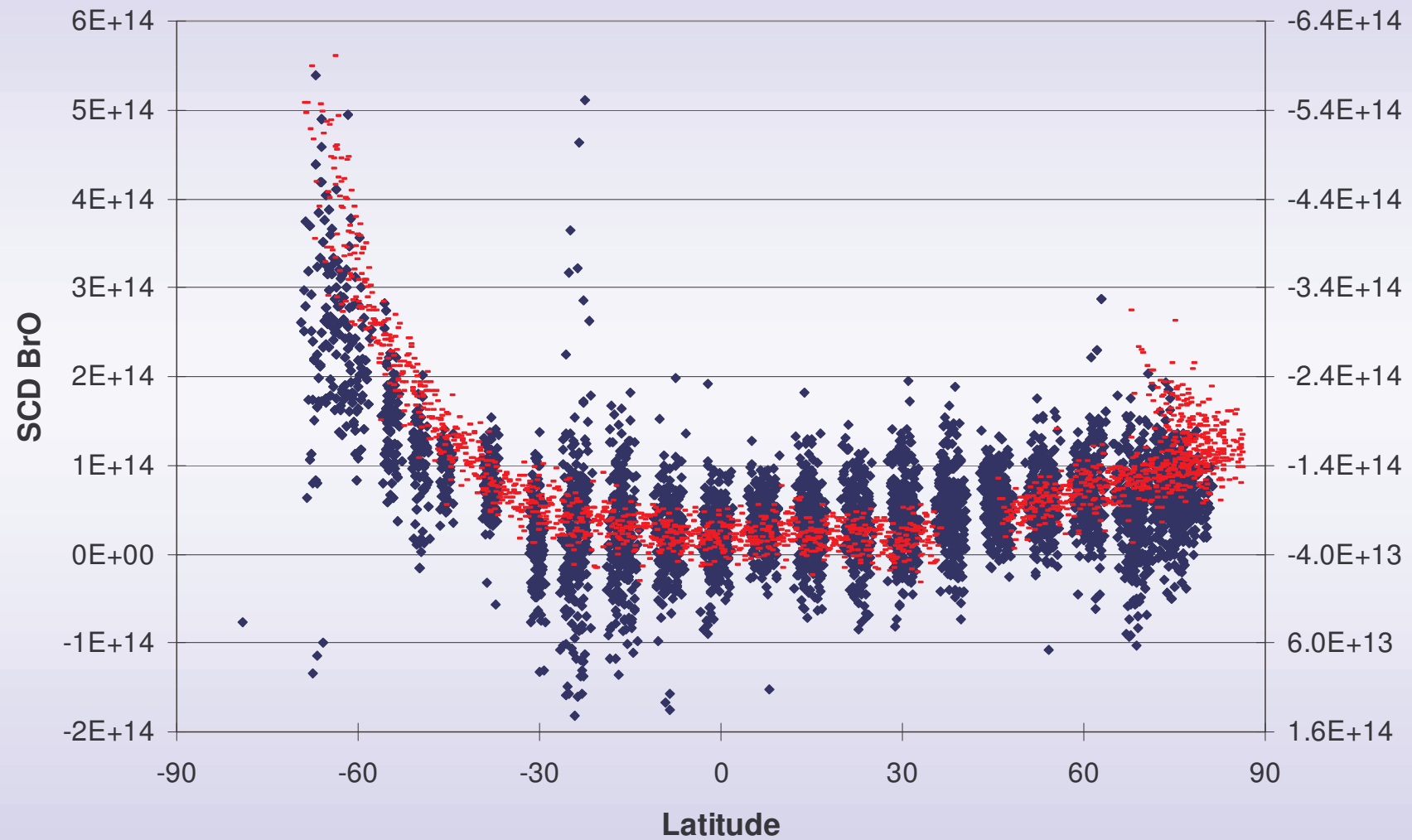
Pol. Degr. 9, Earth spectrum, only dark current



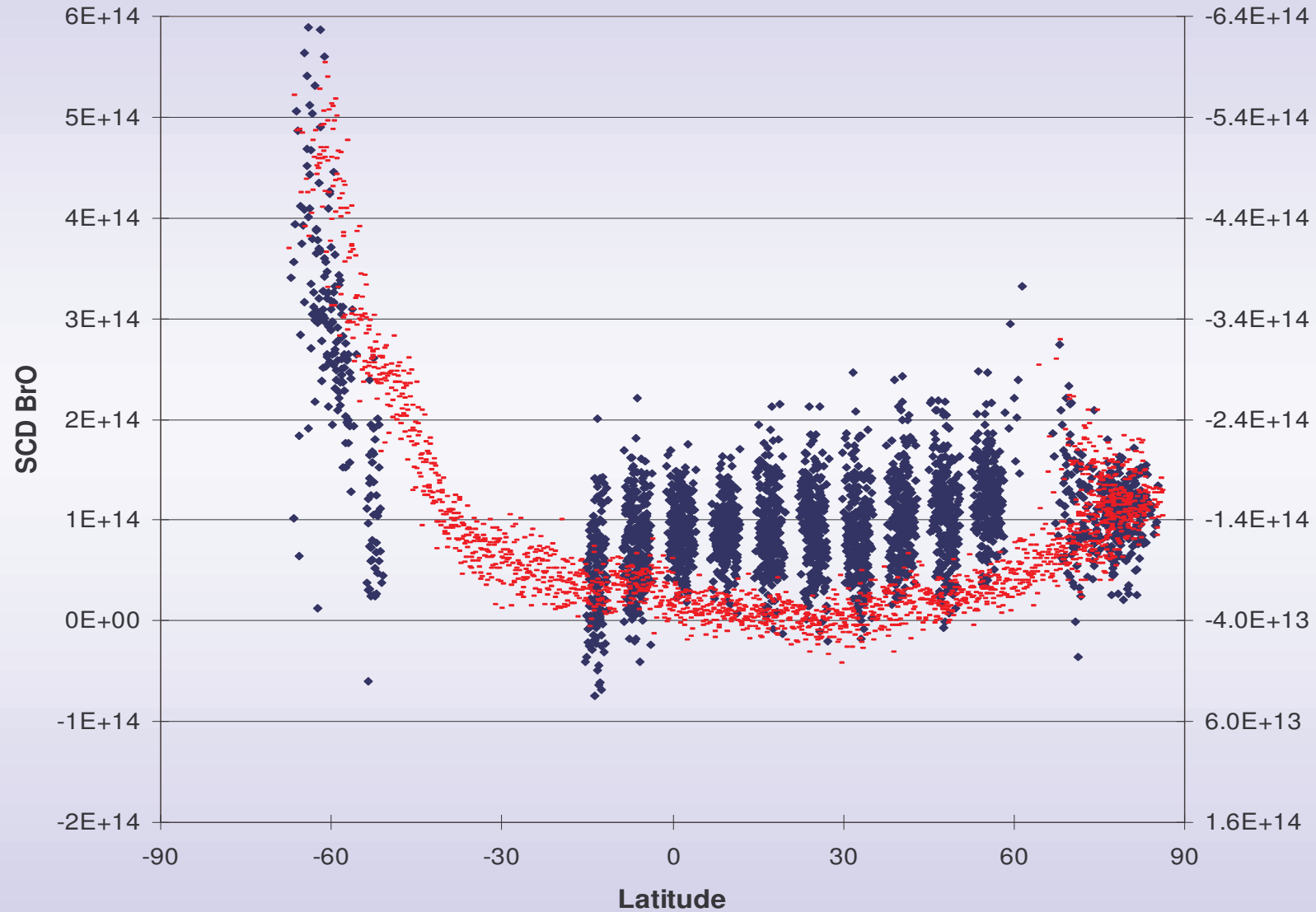
Pol. Degr. 9, Earth spectrum, only dark current, smoothed



Comparison SCIA 02338 with GOME 11. August 1999



Comparison SCIA 02222 with GOME 3. August 1999



Conclusions

- First attempts for NO₂ and BrO from SCIA nadir
- NO₂ yields already good results (earth shine reference)
- BrO is strongly affected by polarisation correction
- H₂O from NO₂ window
- High spatial resolution shows NO₂ plumes from cities