Typical UV/visible spectra as measured with the GOME spectrometer. The reflectance is obtained by dividing the nadir observed spectrum (I) by the solar spectrum (F). Under cloudy sky condition the reflectance is high across the UV and visible spectral range (white clouds), while the clear-sky reflectance peaks in the near UV (blue). The peaking in the blue part of the spectrum is due to Rayleigh-scattering ("why is the sky blue?") and explains why our planet is called the "blue planet". The reflectance spectra show several major atmospheric absorbers like ozone (O₃), water (H₂O), and oxygen (O₂) that along with the minor absorbers (not directly visible here) can be retrieved from DOAS typeUVN data. The sharp drop below about 340 nm is due to ozone absorption and explains why ozone is vital in protecting the earth surface from the harmful UV radiation. Adapted from Burrows et al. (1999).