Data description

Each file contains a vertical profile of one Titan's atmospheric parameter (temperature ; volume mixing ratio of C2H2, C2H4, C2H6, C3H8, C3H4, C4H2, C6H6, HCN, HC3N ; mass mixing ratio of haze or extinction coefficient of haze), which are displayed in the figures of Vinatier et al. (2020, A&A in press, <https://doi.org/10.1051/0004-6361/202038411>).

Header of each file gives the observation characteristics of each retrieved vertical profiles.
The method used to retrieve the vertical profiles is described in Vinatier et al. (2020, A&A in press, <https://doi.org/10.1051/0004-6361/202038411>).

Files names include:
- the main observing parameters (Solar Longitude = Ls, Latitude = lat, Longitude = lon)

- the atmospheric parameter name: “profT” corresponds to thermal profiles; “profq” followed by a species name corresponds to the volume mixing ratio profile of the molecule or the mass mixing ratio of the haze; “kext” corresponds to the extinction coefficient profile of the haze.
- a reference to the paper (VINATIER2020).

Data:
- column 1 = altitude (km)
- column 2 = pressure (mbar)
- column 3 :

for « profT » files, column 3 = Temperature (K)
for « profq » files, column 3 = Volume Mixing Ratio of the given molecule, if the file name contains « HAZE », then it is the mass mixing ratio of the haze (see header of the corresponding file)
for « kext » files, column 3 = extinction coefficient of haze (cm-1)
- column 4 and 5 = minimum and maximum values of the atmospheric parameter corresponding to a 1-sigma error bar.
- column 6 = sigma (see header of the file)

- for « profq » files, column 7 gives the atmospheric temperature in K.