| Codename | Bands | Absorbers | Continua | Tolerance | Sources | NaN-clean | SOCRATES | Date | Platform | Creator | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Legacy | 318 | H2O, CO2, O3, N2O, CO, CH4, O2, NO, SO2, NO2, NH3, HNO3, N2, H2, He, OCS | CO2, CH4, O2, N2, H2, He | 1.00E-02 | HITRAN | TRUE | 2002 | 2021 | Linux Intel | Tim Lichtenberg | Legacy spectral file used in Lichtenberg+2021 |
| Oak | 318 | H2O | H2O | 1.00E-02 | HITRAN | TRUE | 2306 | 2023-07-10 | Linux Intel | Harrison Nicholls | |
| Idwal | 318 | H2O | H2O | 1.00E-02 | HITRAN | FALSE | 2211 | 2023-07-11 | Linux Intel | Harrison Nicholls | Made redundant by Oak. They only differ by SOCRATES version. |
| Balmora | 318 | H2O | H2O | 1.00E-02 | HITRAN | FALSE | 2306 | 2023-07-19 | Mac ARM | Tim Lichtenberg | Made redundant by Oak. They only differ by creation platform. |
| TelMora | 697 | H2O | H2O | 1.00E-02 | HITRAN | FALSE | 2306 | 2023-08-04 | Mac ARM | Tim Lichtenberg | Spectral file creation failed, raising a convergence error when fitting k-terms to cross-sections. |
| Triangle | 318 | H2O, H2, CO2 | H2O, H2, CO2 | 1.00E-02 | HITRAN | TRUE | 2306 | 2023-07-11 | Linux Intel | Harrison Nicholls | |
| Mallard | 318 | H2O, H2, CO2, CO, CH4, O2, N2, He | H2O, CO2, CH4, O2, N2, H2, He | 1.00E-02 | HITRAN | TRUE | 2306 | 2023-07-13 | Linux Intel | Harrison Nicholls | |
| Reach | 318 | H2O, CO2, O3, N2O, CO, CH4, O2, NO, SO2, NO2, NH3, HNO3, N2, H2, He, OCS | H2O, CO2, CH4, O2, N2, H2, He | 1.00E-02 | HITRAN | TRUE | 2306 | 2023-07-19 | Linux Intel | Harrison Nicholls | |
| Vivec | 318 | H2O, CO2, O3, N2O, CO, CH4, O2, NO, SO2, NO2, NH3, HNO3, N2, H2, He, OCS | H2O, CO2, CH4, O2, N2, H2, He | 1.00E-02 | HITRAN | FALSE | 2306 | 2023-07-25 | Mac Intel | Tim Lichtenberg | |
| Alduin | 432 | H2O | H2O | 1.00E-02 | EXOMOL | TRUE | 2306 | | Linux Intel | Ryan Boukrouche | Script exists to generate this file, but it is not currently available in the Google Drive folder |
| Kynesgrove | 318 | O2 | O2-O2 | 5.00E-04 | DACE | TRUE | 2403 | 2024-03-14 | Linux Intel | Harrison Nicholls | Created for validation of DACE xsec data against SOCRATES' own LbL calculations used in Mallard. |
| Frostflow | 4096 | H2O | H2O | 5.00E-03 | DACE | TRUE | 2403 | 2024-03-20 | Linux Intel | Harrison Nicholls | Very high resolution. Intended for benchmarking. |
| Frostflow | 256 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | High resolution. |
| Frostflow | 48 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | Medium resolution. |
| Frostflow | 16 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | Low resolution. Intended for debugging. |
| Dayspring | 4096 | H2O, H2, CO2, CO, CH4, N2 | H2O-H2O, H2-CH4, H2-H2, N2-H2, N2-N2, N2-H2O, CO2-CO2, CO2-H2, CO2-CH4 | 1.00E-02 | DACE | TRUE | 2403 | 2024-04-30 | Linux Intel | Harrison Nicholls | Very high resolution. Intended for benchmarking. |
| Dayspring | 256 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | High resolution. |
| Dayspring | 48 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | Medium resolution. |
| Dayspring | 16 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | Low resolution. Intended for debugging. |
| Honeyside | 4096 | H2O, H2, CO2, CO, CH4, N2, NH3, SO2, N2O, O3, HCN, H2S | H2O-H2O, H2-CH4, H2-H2, H2-N2, N2-N2, N2-H2O, CO2-CO2, CO2-H2, CO2-CH4 | 1.00E-02 | DACE | TRUE | 2403 | 2024-07-07 | Linux Intel | Harrison Nicholls | Very high resolution. Intended for benchmarking. |
| Honeyside | 256 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | High resolution. |
| Honeyside | 48 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | Medium resolution. |
| Honeyside | 16 | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | Low resolution. Intended for debugging. |