**Atmospheric Chemistry Experiment (ACE) on SCISAT**

Canada’s SCISAT is studying the complex chemical processes that affect the distribution of ozone in the upper atmosphere, especially over the Artic. From its orbit 650 kilometres above the Earth, its instruments use the light from sunrises and sunsets each day to identify more than 60 gases and particles. This successful mission represents a partnership involving universities, industry, and government.

Explore this data using CSA's SCISAT micro application, available here: <https://donnees-data.asc-csa.gc.ca/scisat>.

**Time Range**

Data is from February 2004 to February 2024.

**Molecules**

The SCISAT open data consists of several comma-separated value (CSV) files. Each file relates to a specific molecule.

Examples:

ACEFTS\_L2\_v5p2\_O3.csv 🡪 O3 Ozone

ACEFTS\_L2\_v5p2\_CO2.csv 🡪 CO2 Carbon dioxide

ACEFTS\_L2\_v5p2\_CH4\_212.csv 🡪 Ch4 Methane, isotope 212

**Format of CSV Files**

All CSV files have the same format.

**First Columns**

The first column indicates the concentration in parts per volume from 0.5 km above Earth surface to 150 km high stepping 1 km per column.

**Minimum Concentration**

Minimum concentration in parts per volume.

**Maximum Concentration**

Maximum concentration in parts per volume.

**Date**

Date and time in Universal Coordinated Time (UTC) time.

**Latitude**

Latitude in degrees. As a convention, positive values are in the North hemisphere and negative values are in the South hemisphere. The equator is zero. The North Pole is at 90. The South Pole is at -90.

**Longitude**

Longitude in degrees. As a convention, positive values are East and negative values are West. Greenwich is zero.