SSHADE Users Newsletter - October 2023

Dear SSHADE users,

This 'SSHADE user newsletter' introduces the **CSS database** providing all data recorded during the TNA visits of the Europlanet program at the CSS facility (Grenoble). Moreover, we continue to give you tips to facilitate your search navigation. This time, it focuses on the use of **'search type selectors'** for search with filters.

Focus on a SSHADE database: CSS

The **"Cold Surface Spectroscopy" database** is the repository of the data recorded at the eponym CSS facility in Grenoble, France, during the Trans-National Access visits of the Europlanet-2024 RI European program. It contains **more than 700 bidirectional reflectance spectra** recorded in the visible and near-infrared ranges during fundamental studies on ices, salts, minerals and organics. Many of them have been measured with different grain sizes and **at low temperatures (down to 70K)**

You can for example find data on:

- H_2O ice with different particle sizes, shapes and mixtures: 1, 2
- Hydrated and anhydrous sodium carbonates (Natrite, Thermonatrite, Natron)
- Sodium sulfates (Mirabilite and Thenardite)
- Magnesium chlorides (dihydrate and hexahydrate)
- Ammonium-bearing minerals (ammonium carbonate, bicarbonate, nitrate and biphosphate, Salammoniac, Larderellite, Struvite, Tschermigite and Mascagnite)
- Mineral and ice mixtures relevant for Ceres surfaces: 1, 2, 3

Search tips: the selector for filters

When you perform a search of spectra, band lists, bands or publications and **use the filters** to get efficient and exhaustive results, there is always a **search type selector** just after the keyword name. Depending on the type of data it can be of several types.

- **For a search in a free text** (like a title) it can be chosen to be:
  - *Contain all words* (default): the text must contain all the search words, but not necessarily in the good order
  - *Contain any words*: the text must contain at least one of the search words
  - *Contain phrase*: the series of search words must fit exactly with a part of the text stored in the keyword
  - *Wildcard*: you can search on part of a word by adding a '*' as pre- or post-fix
    - Ex: 'chondr*' will search 'chondre', 'chondrite', 'chondritic', … and their plural.

- **For a keyword with a single free value** (a code, a formula, …)
  - *is* (default): exact value
  - *starts with*: allows to put the beginning or root of a code for example
  - *wildcard*: same as for free text

- **For a keyword with enumeration** (limited list of values) it is always 'in' (grey) and the value can be chosen in the list on the right (with *'Nothing selected'*) by different ways:
  - Click on the list to open it, and then click on each attribute you want to search at the same time. You can deselect a value by clicking again on a selected attribute.
  - You can also choose to search on all terms by clicking on 'Select all'
  - You can also start writing a term (at least 2 letters) and it will reduce the list to all attributes containing this group of letters. You can select some of them.
  - Tip: if you want to select most terms: 'select all' and then deselect the few ones you did not want

- **For numerical values (including dates)** the possibilities can be:
  - = (default), <=, <, >, >= with obvious meanings
  - or: 'Minimun / Maximum':
    - 'Min / max': all values within the interval including the min/max values
    - 'Min / max (exclusive)': same but excluding the min/max values
  - or: = 'value' +/- 'uncertainty'

- **Notes:**
  - For some types of filters, the list of possibilities may be reduced due to a specific aim of the search.
  - when you clean the search field using the symbol on the far right (or 'reset all filters'), this will also reset the selector type to its default value.

Have fun with SSHADE data!

The SSHADE Team

All previous user newsletters are stored in the dedicated **'News' page** of the SSHADE Wiki