

**Sujet :** [sshade-newsletter] SSHADE newsletter february - SCOOP database

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# SSHade Users Newsletter

## SCOOP database and new SSHADE records

February 2026

Dear SSHADE user,

this month we spotlight the **SCOOP database**, dedicated to the spectroscopy of pure and mixed ices and organic materials of planetary and astrophysical interest.

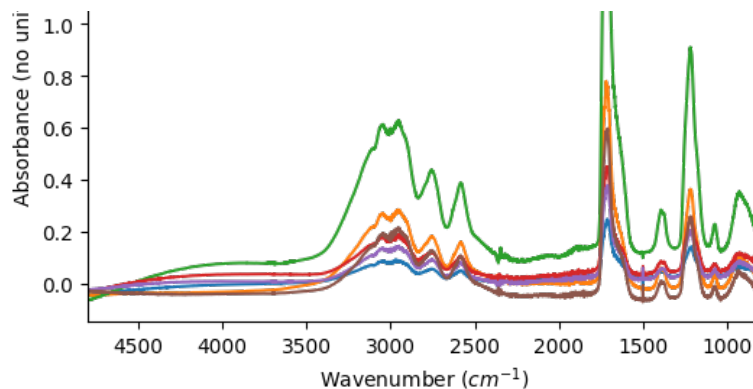
## SCOOP database

SCOOP provides MIR transmission spectra from 2.5 to 12  $\mu\text{m}$  of various molecules measured under vacuum conditions at 25 K. The spectra were acquired at the Laboratoire Interuniversitaire des Systèmes Atmosphériques (LISA), University of Paris-Est Créteil, using a Bruker Vertex 70 FTIR spectrometer. The database includes data for molecules such as  $\text{H}_2\text{O}$ ,  $\text{CO}_2$ ,  $\text{CO}$ ,  $\text{CH}_4$ ,  $\text{NH}_3$ ,  $\text{CH}_3\text{OH}$ ,  $\text{H}_2\text{CO}$ , and  $\text{HCOOH}$ , species which are commonly found in the interstellar medium.

For instance, you can find **MIR absorbance spectra of amorphous HCOOH ice at 25 K, acquired for different deposition rates and ice thicknesses:**

MIR absorbance spectra of amorphous HCOOH ice at 25K for different deposition rates and different thicknesses





- Absorbance MIR spectrum of amorphous HCOOH ice formed at 25 K with a deposition rate of 0.250 nm.s<sup>-1</sup> - Thickness = 457 nm
- Absorbance MIR spectrum of amorphous HCOOH ice formed at 25 K with a deposition rate of 0.250 nm.s<sup>-1</sup> - Thickness = 1473 nm
- Absorbance MIR spectrum of amorphous HCOOH ice formed at 25 K with a deposition rate of 0.250 nm.s<sup>-1</sup> - Thickness = 3008 nm
- Absorbance MIR spectrum of amorphous HCOOH ice formed at 25 K with a deposition rate of 2.40 nm.s<sup>-1</sup> - Thickness = 728 nm
- Absorbance MIR spectrum of amorphous HCOOH ice formed at 25 K with a deposition rate of 0.240 nm.s<sup>-1</sup> - Thickness = 713 nm
- Absorbance MIR spectrum of amorphous HCOOH ice formed at 25 K with a deposition rate of 0.240 nm.s<sup>-1</sup> - Thickness = 1189 nm

The ice thicknesses have been measured, by laser interferometry, simultaneously to the acquisition of the infrared spectra. Such procedure allows for the determination of the infrared band strengths, which are essential for estimating molecular abundances relative to water in the interstellar medium and other astrophysical environments.

## New records

This newsletter also gives us the opportunity to celebrate two new records for SSHADE:

- More than **10,000 spectra** available online
- Over **1,000 registered users**

We warmly thank all of you for contributing to the growth and success of the SSHADE database.

Have fun with SSHADE data!

The SSHADE team

All previous user newsletters are stored in the dedicated [News](#) page of [the SSHADE wiki](#).

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