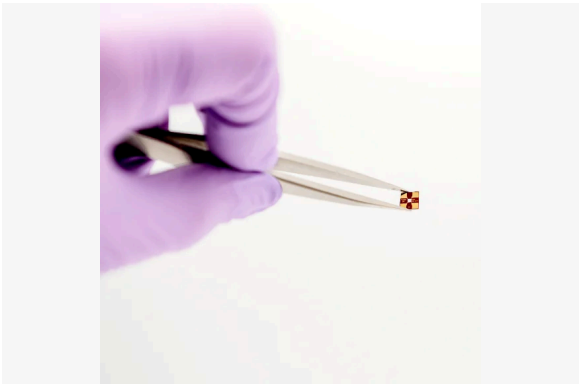
EMILIE™ · CONSUMABLE

EMILIE Light Chip

A reference chip carrying a broadband linear absorber, used to record the FT-IR light-source spectrum.



ROLE IN THE DATA-PROCESSING WORKFLOW

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Record the light-source background with the EMILIE Light chip	Record NEMS-FT-IR spectrum of your analyte on a sampling & sensing chip	Divide the analyte spectrum by the light source spectrum from step 1.	Normalize to the SiN peak at 835 cm^{-1} and convert to absorbance units using the EMILIE scaling factor.[1]	Process a blank chip the same way (steps 2-4), then subtract it from the analyte spectrum.

[1] For the full procedure see the *Data Processing Guide for NEMS-FT-IR Spectroscopy*, available at invisible-light-labs.com/resources.

FEATURES

- A specialized linear absorbing material records the FT-IR spectrum of the light source, such as a globar.
- Essential for post-processing: the sample and blank spectra are divided by this background.
- Uses dedicated EMILIE-LIGHT-Background pre-settings; the lot number is printed on the bag slip.
- Distinct from a blank chip, which carries everything but the analyte: the light chip characterizes the instrument, not the sample matrix.

TABLE 1 SPECIFICATIONS

Function	**Records the FT-IR light-source background / reference spectrum**
Absorber	**Broadband linear absorbing material**
Role in workflow	**Step 1 of the five-step background and blank correction**
Chip platform	**50 nm SiN**
SiN reference absorptance	**0.21 ± 0.01 at 835 cm^{-1}**
Handling note	**Produces large frequency changes; may trigger an Output Range warning during tracking**

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