



INSTRUMENT USER SHEET

SPECTROFLUOROMETER – EDINBURGH INSTRUMENTS FS5

General Information

- **Instrument:** Spectrofluorometer – Edinburgh Instruments FS5
- **Brand:** Edinburgh Instruments
- **Location:**
 - CRIETT – Cubo Building
 - Via Valleggio, 9 - Como
 - Floor: 3 - Lab. P3-13 (CO.CUBO P3.008.0)
- **Contact Person:** Prof. Stefano BRENNNA
- **E-mail:** stefano.brenna@uninsubria.it
- **Phone:** 031 2386476
- **List of Users:**
 - Prof. G. Attilio Ardizzoia
 - Prof. Stefano Brenna
 - Prof.ssa Simona Galli
 - Prof. Massimo Mella
 - Prof. Luca Nardo
- **Training Path:** Yes*

*Autonomous use of the instrument is planned. The practical part involves individual training (days/week training, the duration of which will be defined by the instrument contact person). For the theoretical part, the contact person will provide a handout on operating principles.



Internal tickets can be viewed on the intranet page (access with university credentials): <https://intranet.uninsubria.it/areadocumenti/ticket-strumenti-criett-utenti-interni>

The fee schedule for external users can be viewed on the website:
www.uninsubria.it/criett

Traceability of Performance

CRIETT in scientific journals (see CRIETT Regulations art.11): It is mandatory to mention the CRIETT Core Facility used in the acknowledgements of scientific publications, using the following formula:

“The scientific support from CRIETT centre of University of Insubria (instrument code: XXX) is greatly acknowledged”.

- **Instrument Code:** MAC12

Access Modes

1. Direct Access (Self-Service)

- **Who:** Only users who use the instrument continuously have received specific training and are authorized by the instrument contact person.
- **Mode:** The trained user can access and use the instrument independently by making an online reservation.

2. Occasional/Temporary User:

Can access the instrument through the Contact Person or via an authorized User.

Description and Functionality

Spectrofluorometer complete with equipment for fluorescence and phosphorescence measurements in both steady-state (Xe lamp 150 W) and time-resolved spectroscopy (LED pulsed sources), for samples in solid state, solution, and thin film. The instrument is also equipped with an integrating sphere, purchased separately and adapted for the measurement of absolute fluorescence quantum yields.

Technical Specifications:

- **High Sensitivity:** Water Raman SNR > 15000:1
- **Accuracy:** ± 0.5 nm
- **Acquisition Speed:** 100 nm/s
- **Data Collection Range:** 200–850 nm for steady-state measurements
- **Lifetime Range:** From approx. 200 ps to 10 s
- **Monochromatic Light Source** across the entire operating range (200–850 nm)
- **Interchangeability** between steady-state and lifetime configurations (managed via software, without the need to turn off the instrument)
- **Sample Measurements:** Ability to measure samples in solution, solids, and thin films
- **Included Detector:** Transmission/absorption measurements
- **Capability for low-temperature measurements** via a thermostatable sample holder

⚠ Safety Warnings

- Use only after completing the training path.
- Do not touch the optics directly with your fingers.
- In case of doubts or anomalies, contact the technician/contact person.

Operating Notes

- Instrument reservation is mandatory through the internal management system.
- Self-service use is allowed only for trained and registered (or authorized) users.
- Any malfunctions must be reported promptly to CRIETT staff.



Materials and Analysis Accessories

Provided by CRIETT

//

Provided by the User:

- Fluorescence cuvettes
- Solvents

