



INSTRUMENT USER SHEET

SPECTROFLUOROMETER – FLUORESCENCE MASTER SYSTEM

General Information

Instrument: Spectrofluorometer Fluorescence Master System

Brand: Photon Technology International (PTI) (a division of Horiba, Edison, NJ, USA)

Location:

- Via Valleggio 9 Como
- Floor: 3

Contact Person: Prof. Luca NARDO

E-mail: luca.nardo@uninsubria.it

Phone: 031 238 6272-6273-6254 (For emergencies: 349 3700687)

List of Users:

Prof. Luca Nardo

Prof. Stefano Brenna

Training Path: Yes*

*Autonomous use of the instrument is planned. The practical part involves an individual training session of approximately three hours. For the theoretical part, the contact person will provide a handout on operating principles. The course is activated upon request.

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 CRIETT Performance 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: MAC 13) is greatly acknowledged”.

- **Instrument Code:** MAC13

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

The instrument is modular and allows for the acquisition of a wide range of fluorescence measurements, including:

- Emission spectra
- Excitation spectra
- Synchronous scans
- Time-lapse measurements at a fixed wavelength (including multi-wavelength up to 3 values)

Technical Specifications:

- High-power Xenon lamp, adjustable within the range of 70–85 W

- Variable slit widths for independent manual adjustment of the bandpass (1–20 nm) in both excitation and detection
- Detector (photomultiplier with high voltage manually adjustable between 800 and 950 V) with an adjustable low-noise amplifier (gain 1, 10, 100, 1000)
- External driving module and magnet for sample stirring
- Online correction of spectra relative to the spectral radiance of the source and the differential quantum efficiency of the detector

⚠ Safety Warnings

- In case of doubts or anomalies, contact the 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 the contact person who will notify CRIETT staff.

Materials and Analysis Accessories

Provided by CRIETT:

Cuvette holder for measurements in solution

Holder for solid-state samples (powders, thin films) including a rotator

Magnet for sample stirring

Provided by the User:

Everything not specified above.