



INSTRUMENT USAGE SHEET

VERDI V2 LASER + MBD 266 DOUBLING CAVITY

General Information

Instrument: Verdi V2 Laser + MBD 266 doubling cavity
Brand: Coherent

Location:

- CRIETT
- Via Valleggio 11, Como
- Floor: 3 (CO. VALLEGGIO.TORRE P3.12.0, P3.11.0/1)

Contact Person:

- **Dr. Marco Lamperti**

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Phone: +39 031 238 6226

Expert Users:

Prof. Alessia Allevi

Dr. Maria Bondani

Prof. Fabio Ferri

Dr. Marco Lamperti

Prof. Luca Nardo

Training Required: Yes*

Independent use of the instrument is allowed. The practical part includes individual training (lasting days/weeks, duration defined by the instrument supervisor). For the theoretical part, the supervisor will provide handouts on the 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 CRIETT services in scientific journals (see CRIETT Regulation Art. 11): It is mandatory to acknowledge the CRIETT Major Equipment used in scientific publications, using the following wording:

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

Instrument Code: MAC22

Access Modes

1. Direct Access (Self-Service)

Who: Only users who regularly use the instrument have received specific training and are authorized by the instrument supervisor.

Method: Trained users can independently access and operate the instrument by booking it online.

2. Access with Scientific Technician (Full-Service)

Who: Research groups that use the instrument occasionally, external users, or those without qualified personnel.

Method: Access is provided with the assistance of dedicated technical staff, who manage both booking and operation.

Description and Functions

High-power narrow-linewidth laser with intracavity frequency doubling module, equipped with a computer for data acquisition, coupled to a custom-made Raman spectrometer.

Suitable for experiments such as:

- Spontaneous Raman spectroscopy and microscopy with visible excitation
- UV Resonance Raman spectroscopy

Technical Specifications:

- Wavelength: 532 nm (laser), 266 nm (doubling cavity)
- Power: > 1 W (laser), > 10 mW (doubling cavity)

⚠ Safety Warnings

- Use it only after completing the required training
- Always use appropriate personal protective equipment (PPE)
- Never open the laser housing; there are no user-adjustable parts
- Do not modify the alignment of the doubling cavity without authorization
- Turn off laser emission after use
- In case of doubts or anomalies, contact the technician/supervisor

Operational Notes

- Instrument booking via the internal management system is mandatory
- Self-service use is allowed only for trained and registered (authorized) users
- Any malfunction must be promptly reported to CRIETT staff

Materials and Accessories Provided by CRIETT

- (None specified)
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Materials and Accessories Provided by the User

- Thermopile
- Photodiode
- Oscilloscope

