

MOZZA

Multiple Octave Spectrum Analyzer

ideal for pulsed IR sources from few Hz to multi-kHz



Detection range from 1 to 5 μ m with a single setup

Real-time data display

Superior stability, no moving parts

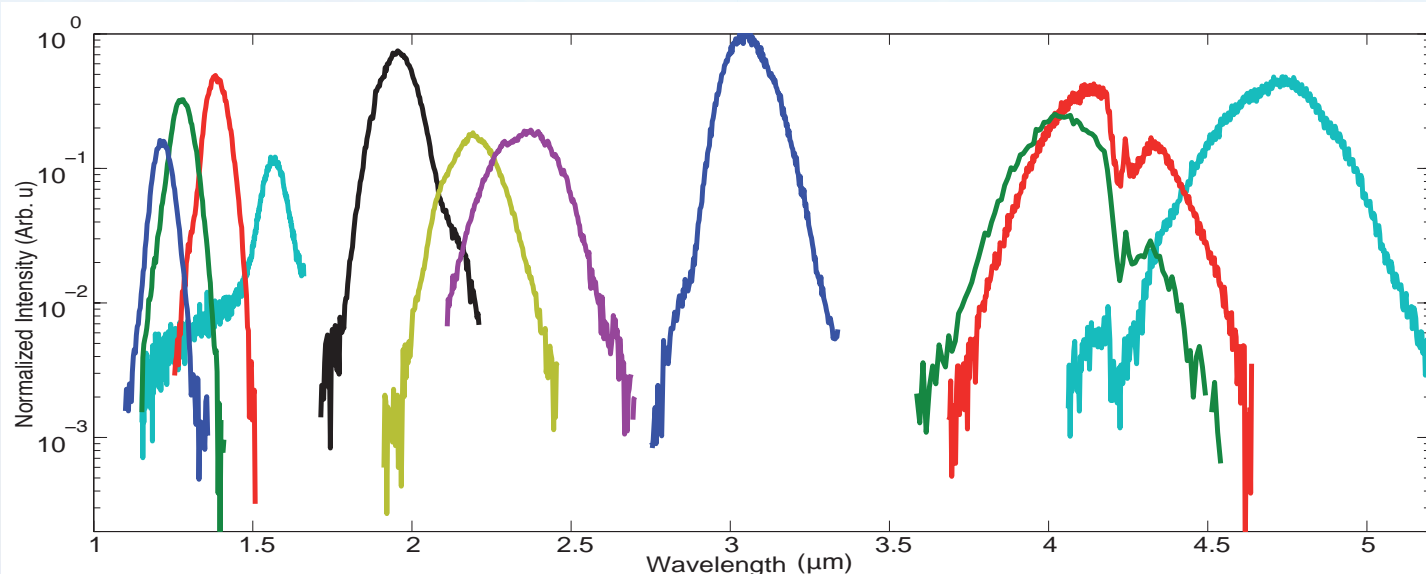
Laser energy fluctuations independent

Dynamic range up to 40dB

Advanced detection modes (numerical lock-in...)

Mozza products are turn-key scanning spectrometers perfectly adapted to the spectral measurement of pulsed IR laser sources with repetition rates from few Hz to MHz such as:

- Femtosecond oscillators (Ytterbium, Thulium, Chromium...)
- fs OPA (signal, idler and DFG outputs)
- ultra-broadband OPCPAs
- Supercontinuum

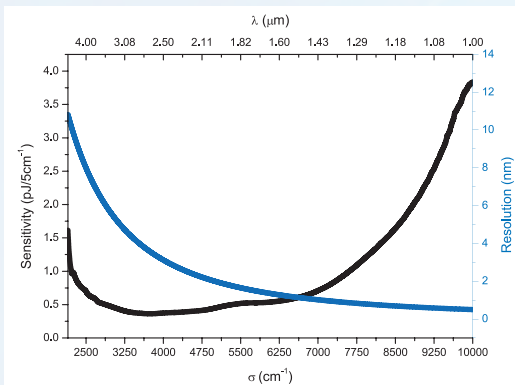


Mozza measurement of Signal, Idler and DFG output of fs OPA (courtesy of Christoph Hauri group - PSI)

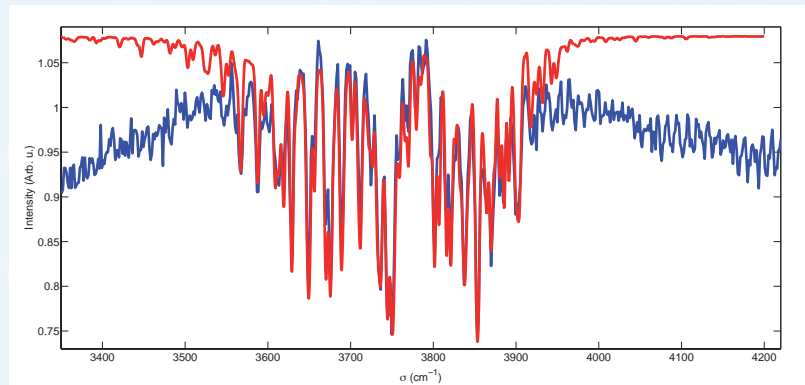
MOZZA Specifications

MOZZA 1 - 5	
Spectral range	1 to 5 μm (2000 to 10000 cm^{-1})
Scanning speed	at laser repetition rate up to 25 kHz
Spectral resolution	5 cm^{-1}
Sensitivity	down to 0,5 pJ per resolution point (see curve below)
Dynamic range	up to 40 dB
Detection bandwidth	50 / 200 kHz depending on gain setting
Available options	FROG extension for temporal pulse measurement up to 9 μm

Typical calibration and characterization data



Mozza 1-5 sensitivity and resolution curves



H_2O absorption lines
red: theoretical (Hitran simulation) - blue: experimental

Dimensions & Requirements :

Input pulse :

- Polarization: linear, vertical
- Beam height: adjustable down to 38,1mm (1,5")
- Input beam: focused on entrance slit / collimated

Trigger: TTL

Minimum PC specifications :

- Windows 7
- 1 USB 2.0 port
- 1GB RAM

Dimensions: 317.4 x 210 x 157 mm

