microCOMB pro

ULTRA-STABLE WAVELENGTH CALIBRATION REFERENCE

UV VIS IR

hpspectroscopy

microCOMB pro

Features

Ultra-stable regularly-spaced comb of spectral lines

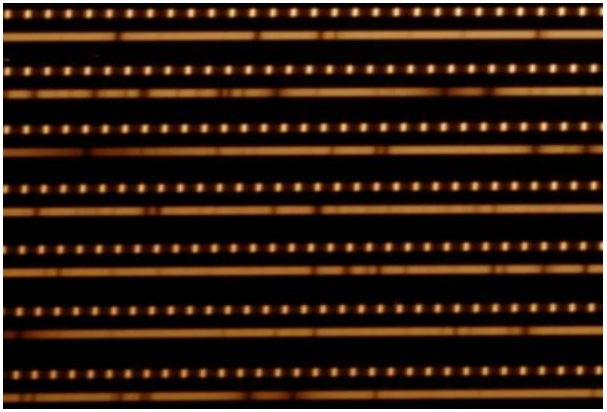
- thermally-isolated Fabry-Pérot cavity for excellent wavelength stability
- wavelength reference for long-term measurements
- highly homogeneous flux in spectral lines

Versatility

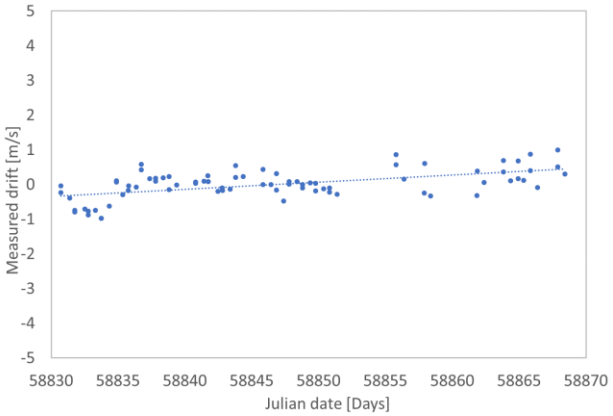
- compact and transportable device
- wide range of application
- large selection of wavelength ranges and light sources
- line spacing and reference output customized to application

Applications

- long-term spectral drift measurements at the 10^{-10} level
- high-accuracy spectrometer wavelength calibration
- radial velocity reference for astronomy spectrographs



Comb of spectral lines with highly homogenous intensity provided by microCOMB pro. Intermediate lines show stellar spectrum as recorded by high-precision spectrograph SOPHIE (*data courtesy of Prof. F. Bouchy and Prof. F. Pepe, University of Geneva*)



Relative drift between thorium-argon lamp and Fabry-Pérot cavity showing the performance of microCOMB pro of <0.10m/s drift, i.e. $\Delta\lambda/\lambda < 3 \cdot 10^{-10}$ per day

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Specifications

Topology	white-light source filtered by Fabry-Pérot cavity in thermally-stabilized vacuum enclosure
Calibration lamp	super-continuum source, laser-driven plasma source, or tungsten lamp
Wavelength range	370-2500nm (selection of one octave)
Wavelength stability	$<1 \cdot 10^{-10}$ in 1h $<3 \cdot 10^{-10}$ (or <10cm/s radial velocity) in 24h
Absolute wavelength error	$<1 \cdot 10^{-7}$
Line spacing	customized to application resolution
Line intensity homogeneity	<1:8, better values on request
Output optical fiber	>200um diameter, NA 0.2, other options on request
Cavity finesse	~10
Temperature stability	$<\pm 5$mK
Pressure stability	$<1 \cdot 10^{-3}$mbar
Control interfaces	USB or Ethernet
Software	Windows UI
Customizable	fully customizable

Contact us

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