

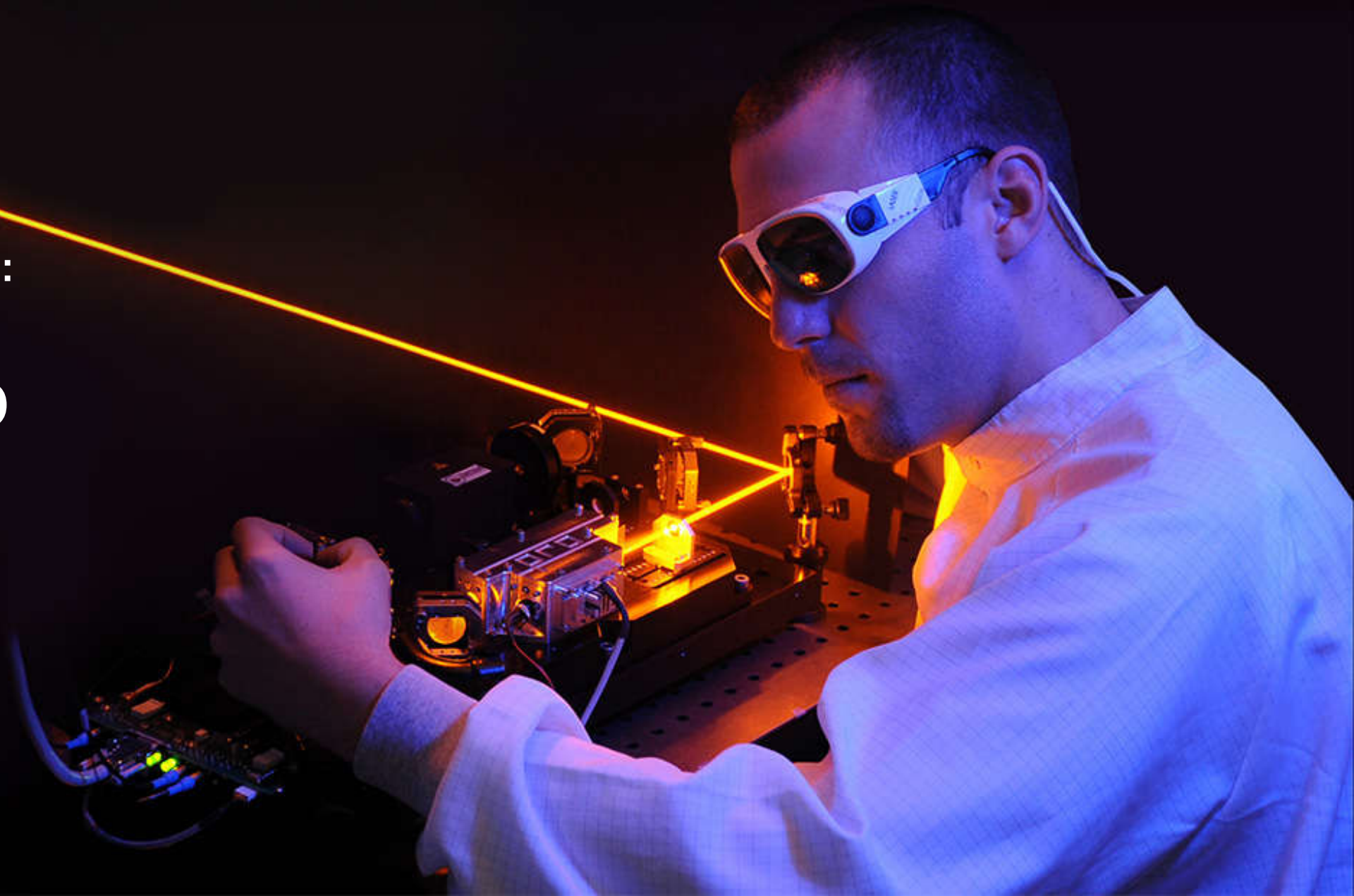


EPIC Members New Product Release:
TOPTICA'S DLC TOPO
the hands-free CW OPO

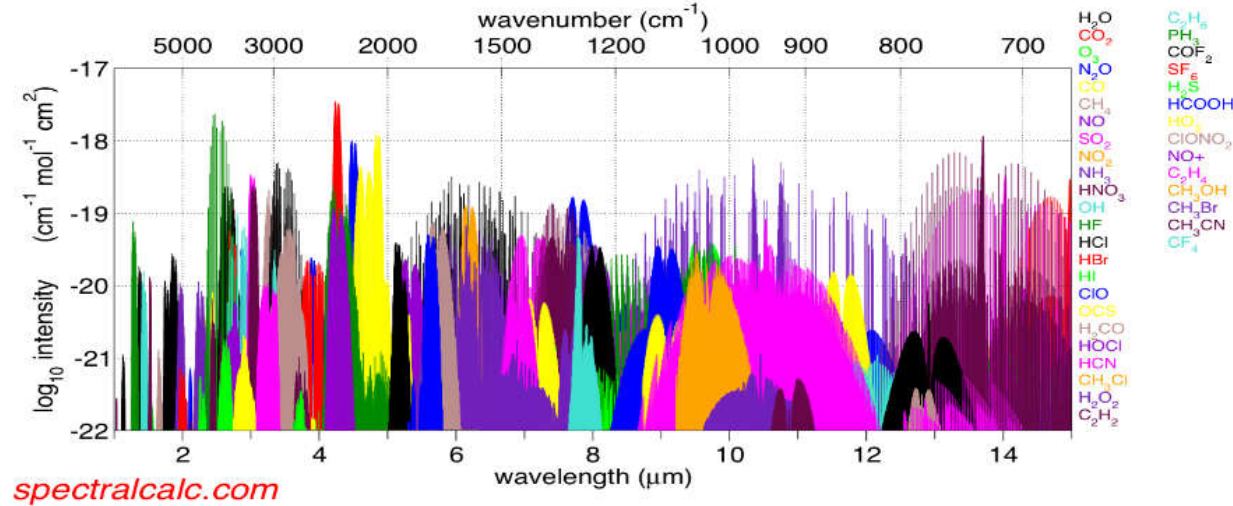
Adam Heiniger, PhD
Product Manager



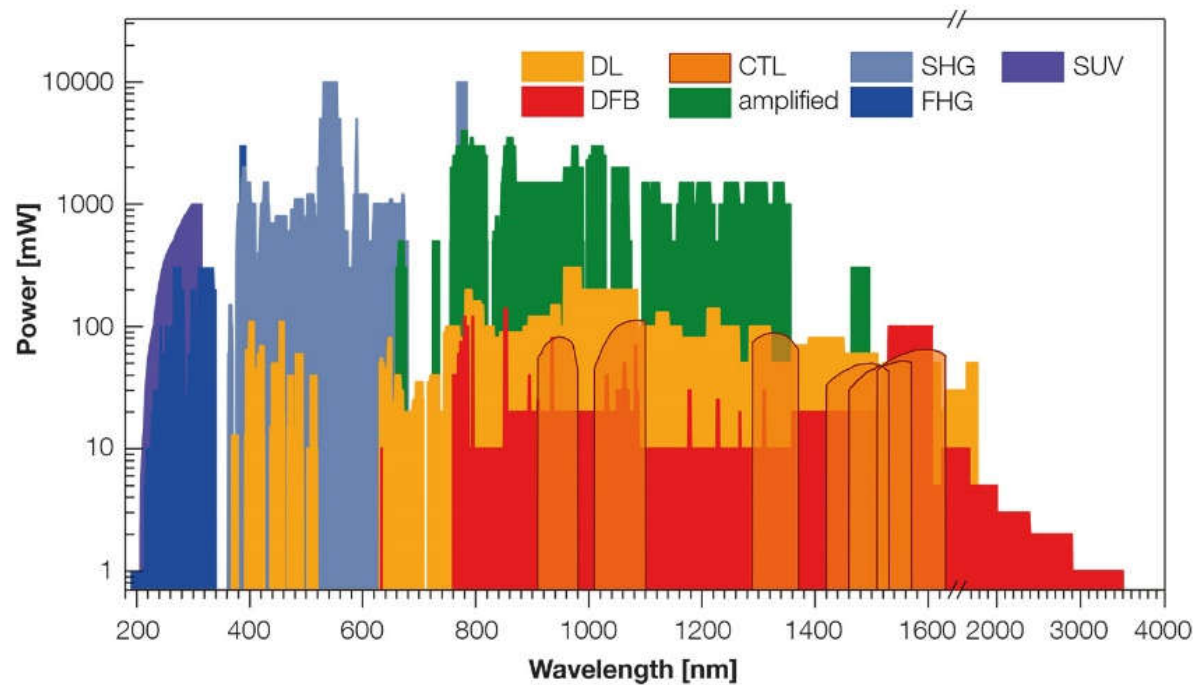
All Wavelengths.
190 nm - 0.1 THz

A horizontal bar with a rainbow color gradient, transitioning from purple on the left to red on the right, representing a wide range of wavelengths.

For molecular spect., IR component char., etc. you need all wavelengths!

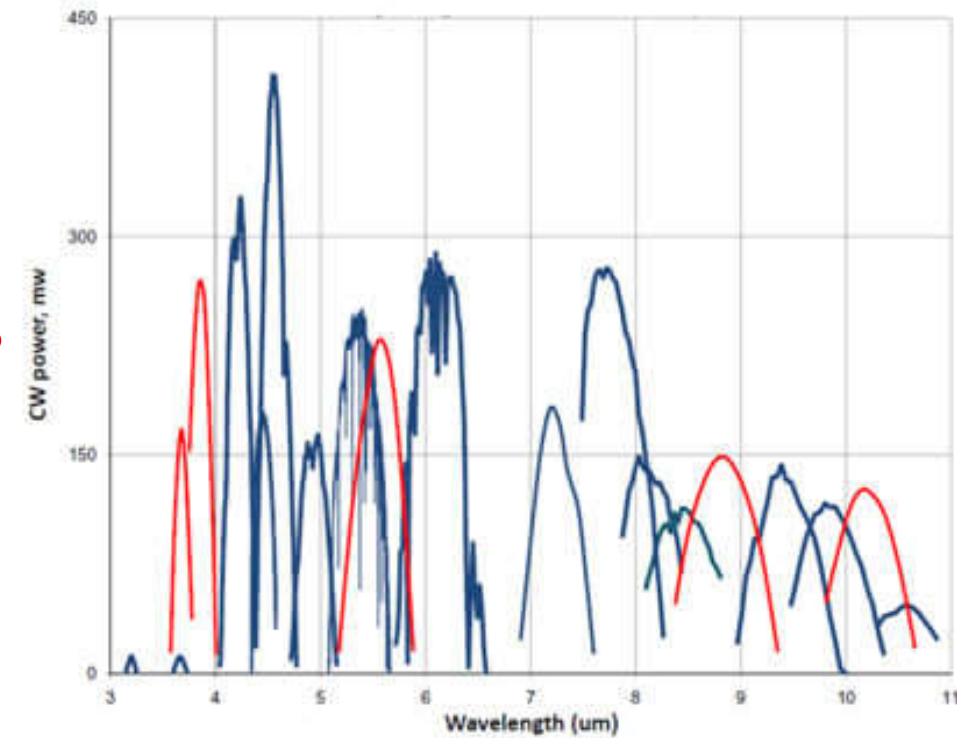


TOPTICA tunable diode lasers

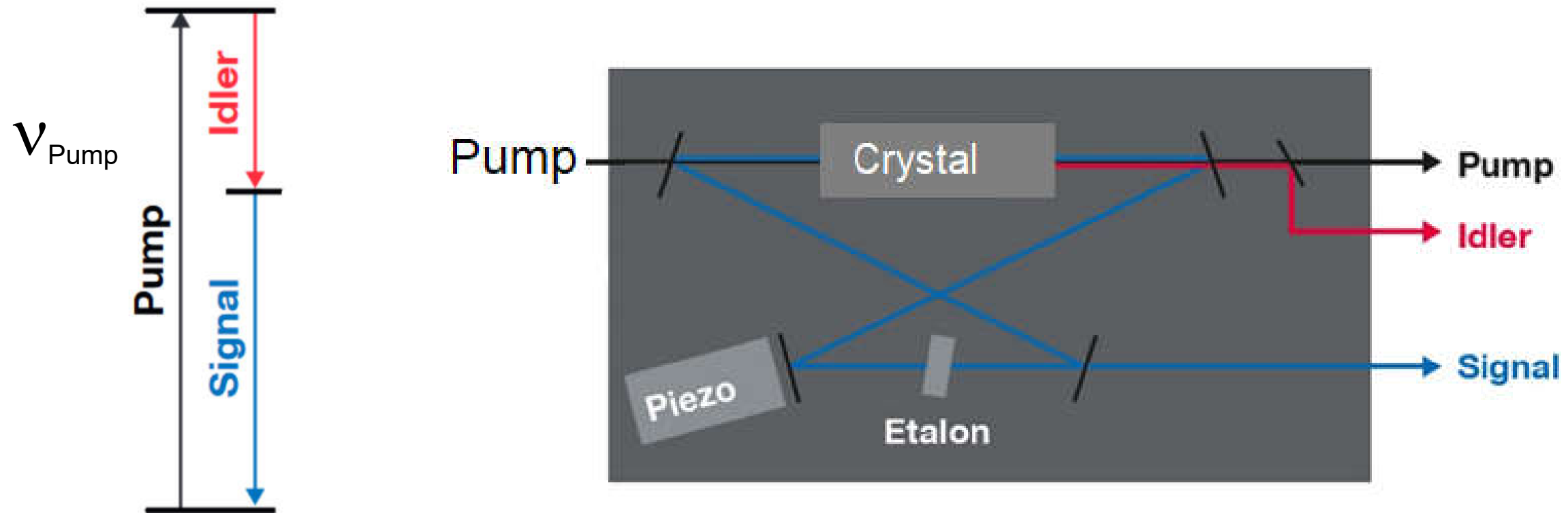


No high power, widely tunable high-res sources between 2 – 4 μm

Quantum cascade lasers



When no direct sources available: Nonlinear frequency conversion



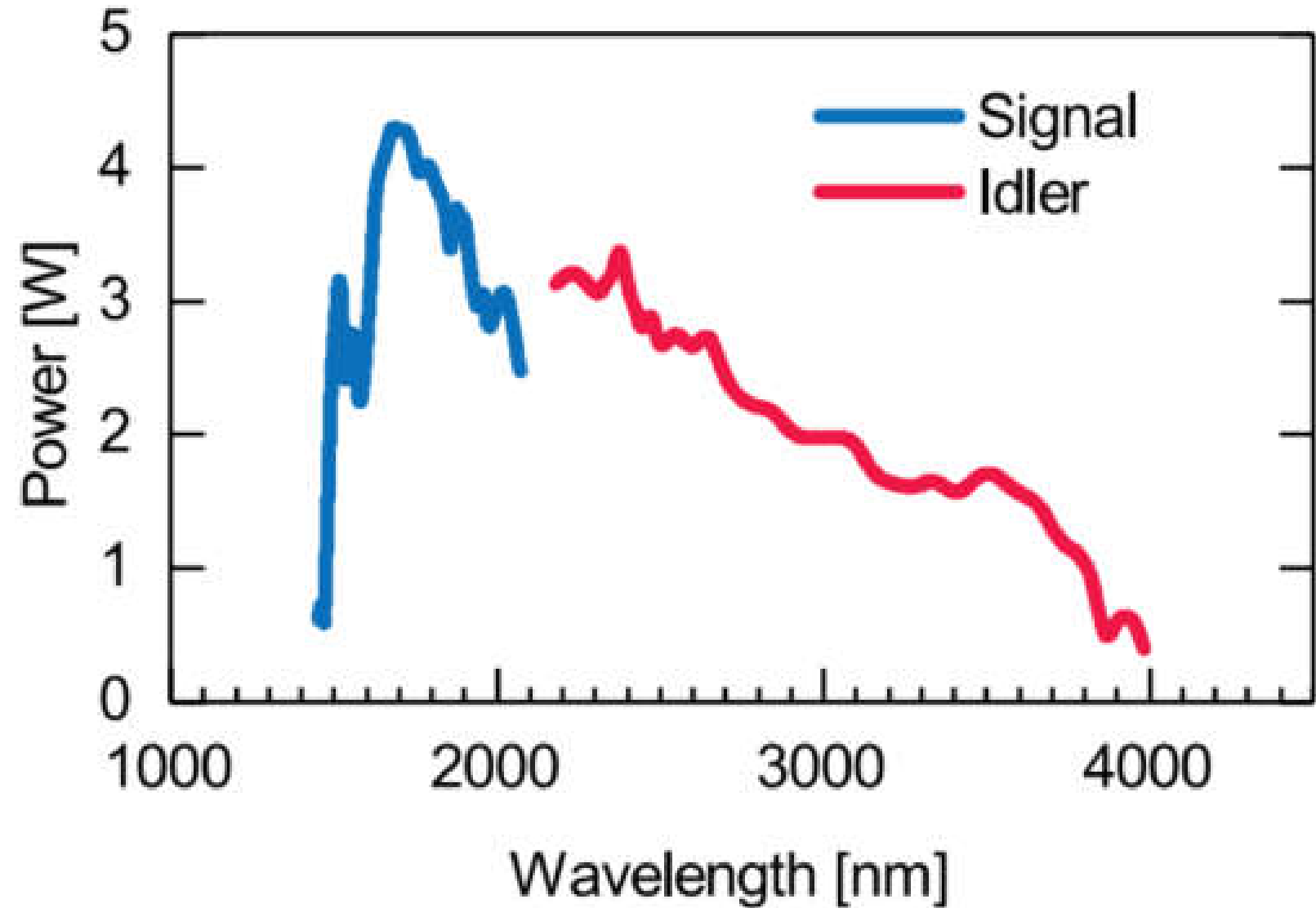
- Optical parametric generation: Split pump photon into two lower-energy photons.
- High efficiency due to:
 - High power NIR pump.
 - Build-up cavity for signal photon.

TOPO – High Power, Wide Tuning Range, Narrow Linewidth



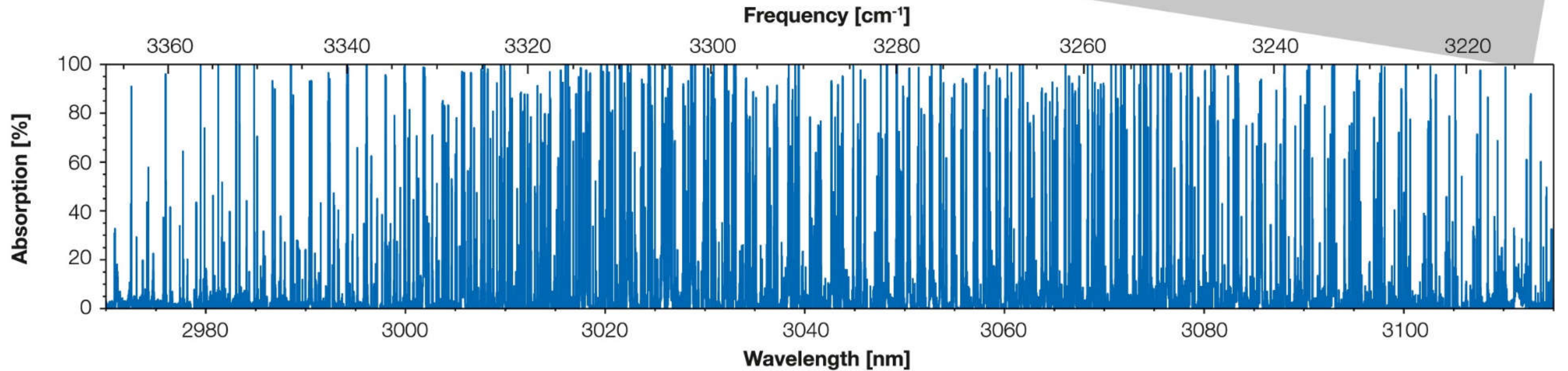
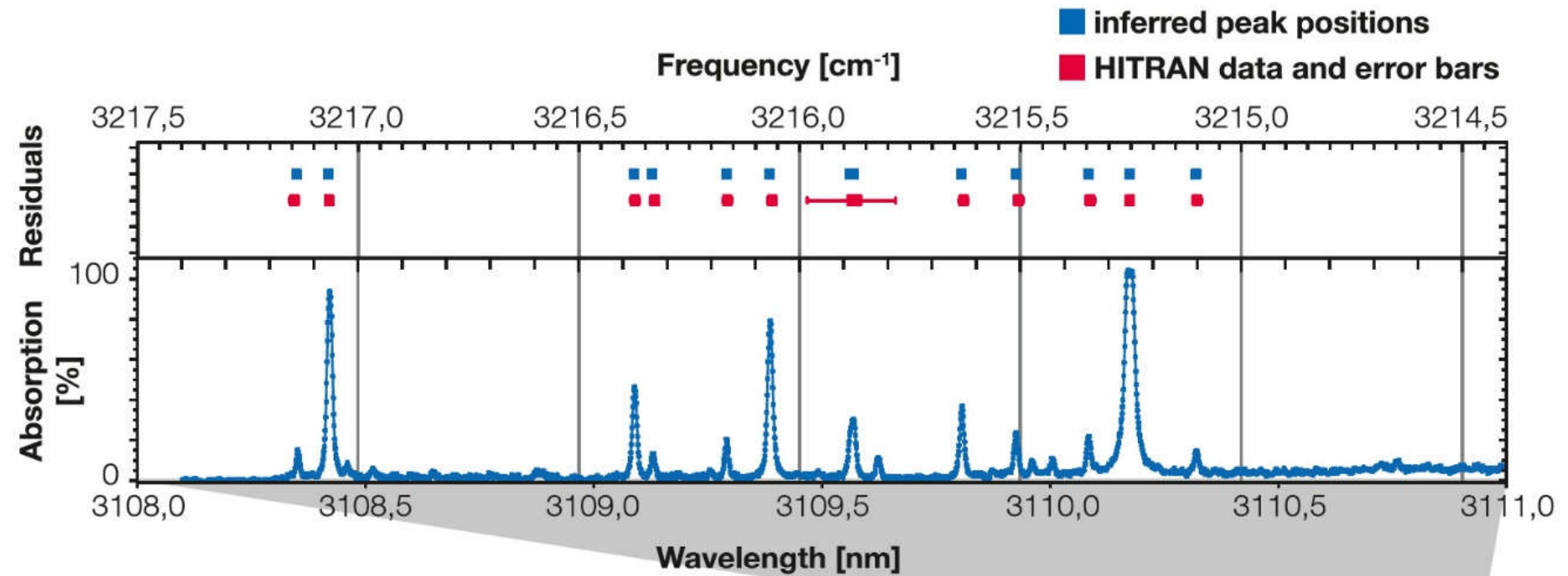
Tunable CW OPO system

- 1.45 - 4.0 μm (2500 - 6900 cm^{-1})
- 300 GHz (10 cm^{-1}) mode-hop-free tuning range
- Narrow linewidth: 2 MHz ($1 \cdot 10^{-5} \text{ cm}^{-1}$)
- Hands-free motorized tuning
- Easy all-digital DLC pro control



Automated High Resolution Spectroscopy

- $C_2H_2 + CH_4$ molecules
- 100,000 Data points
- 8 hours for full continuous scan
- Mode-hop free tuning range: 1-10 cm^{-1}



THANK YOU!

Adam Heiniger
Product Manager
adam.heiniger@toptica-usa.com

