# TB05: HIGH-RESOLUTION COMB-BASED FOURIER TRANSFORM SPECTROSCOPY IN THE 3.3 µm AND 7.8 µm RANGE

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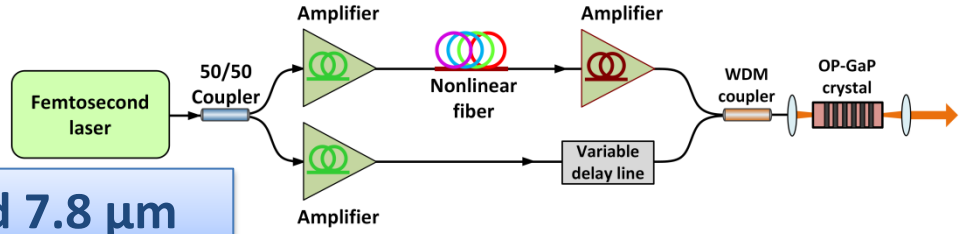
**Comb-based Fourier transform spectroscopy with comb-mode-width limited resolution**




**$f_{ceo}$-free difference frequency generation comb sources @ 3.3 and 7.8 µm**

**$CH_3I$ – methyl iodide @ 3.3 µm**
- New improved assignment of the $\nu_4$ band
- More accurate band parameters

**$N_2O$ – nitrous oxide @ 7.8 µm**
- Line positions of the $\nu_1$ band with 100 kHz precision
- Good agreement with previous high-precision measurements

**$^{12}CH_4$ and $^{13}CH_4$ – methane @ 7.8 µm**
- Line positions of the $\nu_4$ band and the $2\nu_4 - \nu_4$ band
- Improved precision compared to the literature