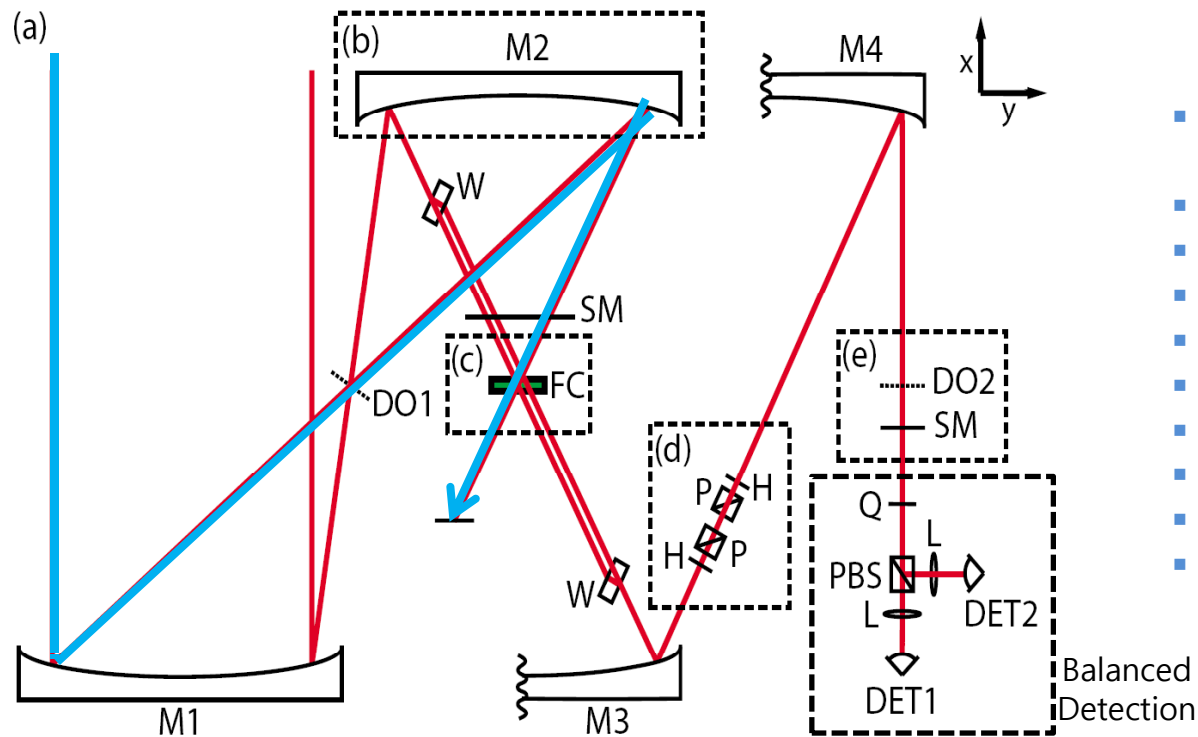
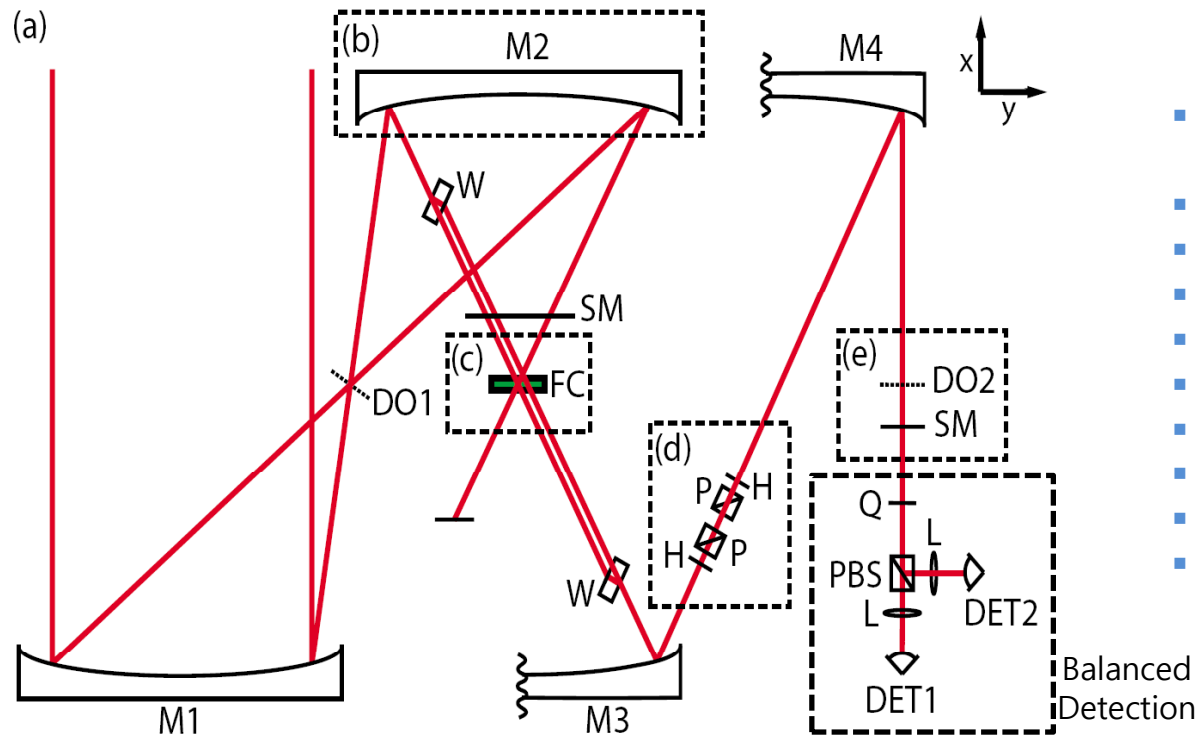


Passive optical interferometer without spatial overlap
between the local oscillator and signal generation



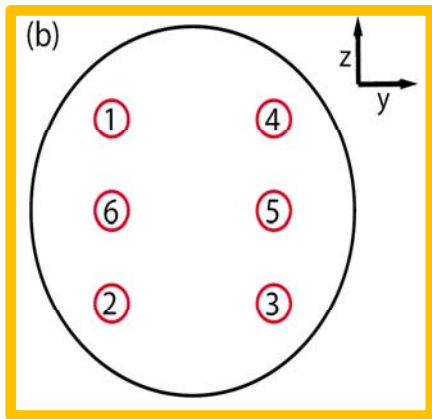
- **M1~M4** : spherical mirror
($f=0.5, 1.0, 0.5, 0.5$ m)
- **DO1, DO2** : diffractive optics
- **W** : window
- **SM** : spatial mask
- **FC** : 1mm flow cell
- **H** : half waveplate
- **P** : polarizer
- **Q** : quarter waveplate
- **L** : lens
- **PBS** : polarizing beam splitter

Balanced
Detection



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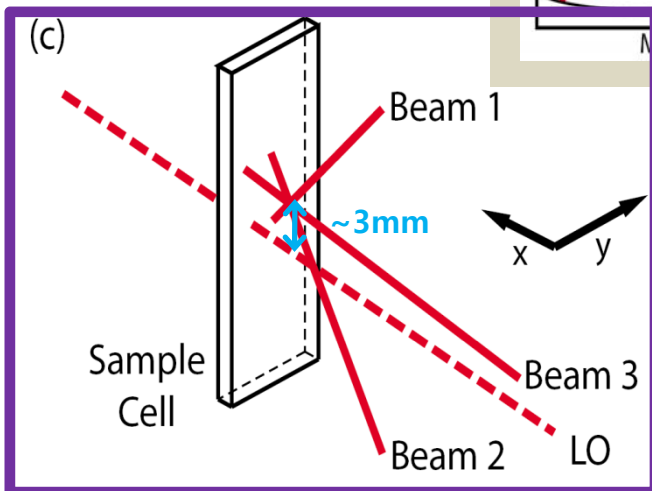
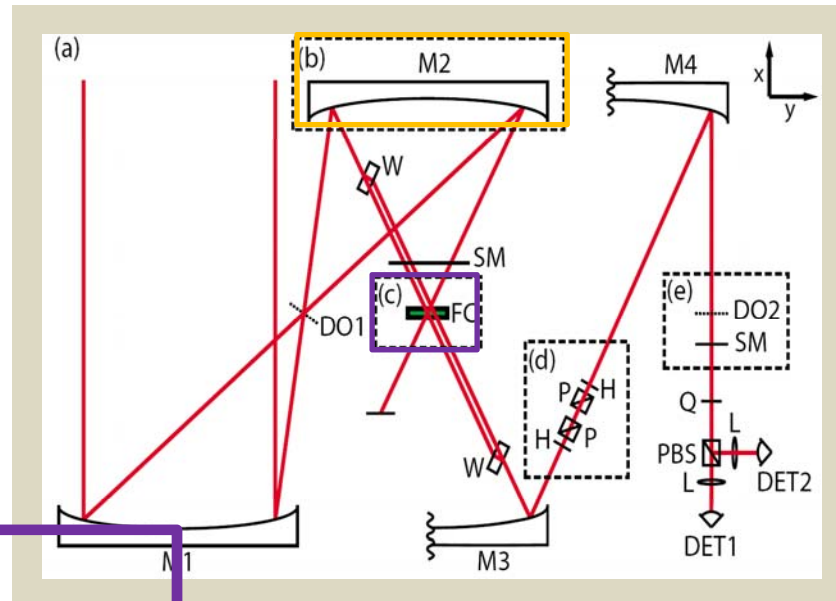
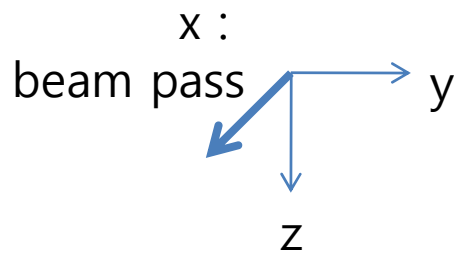
$$\mathbb{k}_{\text{signal}} = \mathbb{k}_1 - \mathbb{k}_2 + \mathbb{k}_3$$

Fields 1~3 : generate a third-order signal

Field 4 : signal tracer for spatial and temporal alignment of the signal

Field 6 : block

Field 5 : LO



window rotator 45°

: The window diverts the path of the beam to separate the LO from the crossing of the other field at the focus by ~3mm

