Development of FT CARS spectroscopy

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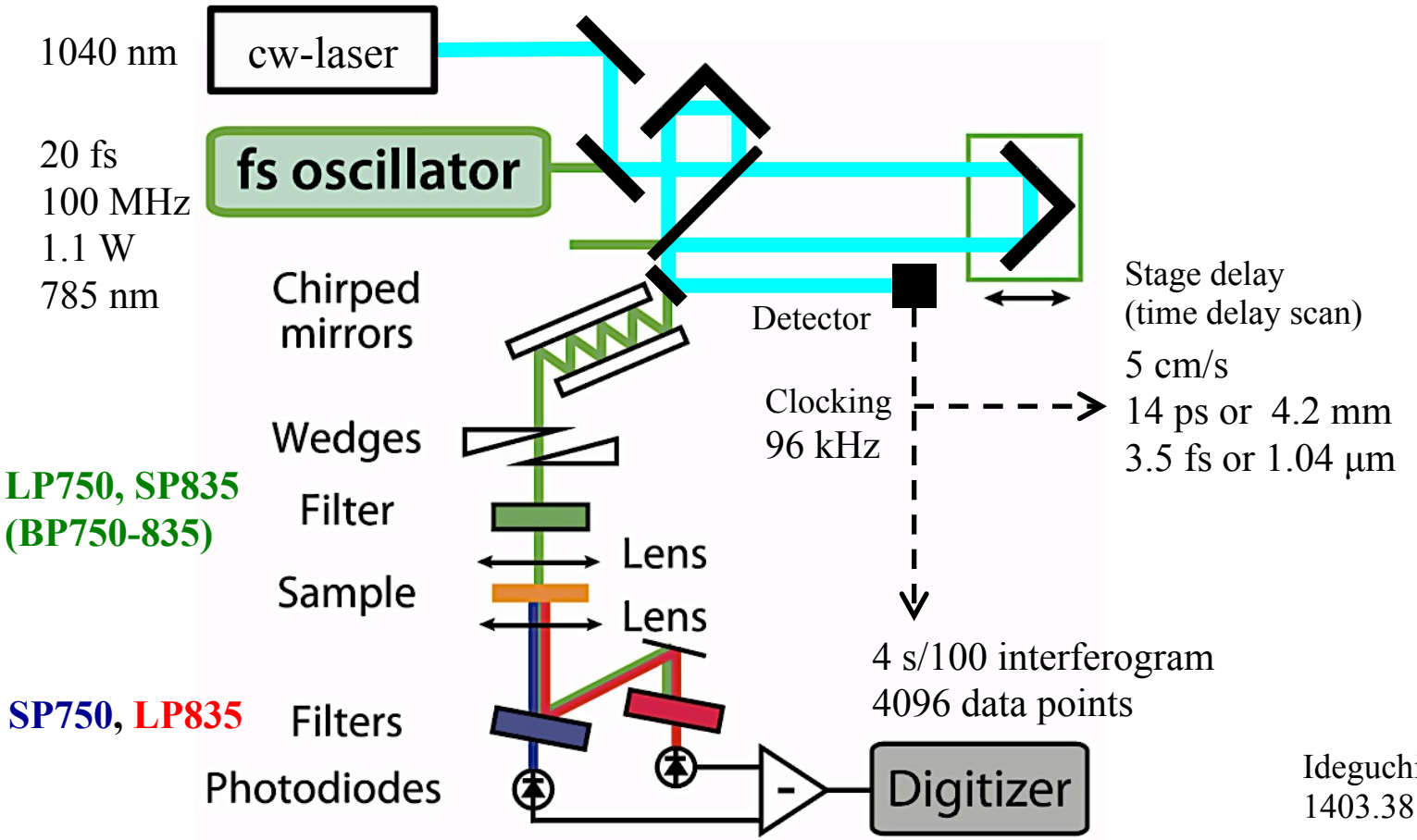
FT CARS spectroscopy will be constructed in Tokushima Univ., which would like to be combined with dual comb spectroscopy for gas analysis in the future



Ideguchi et al.: arXiv, 1403.3814, 2014

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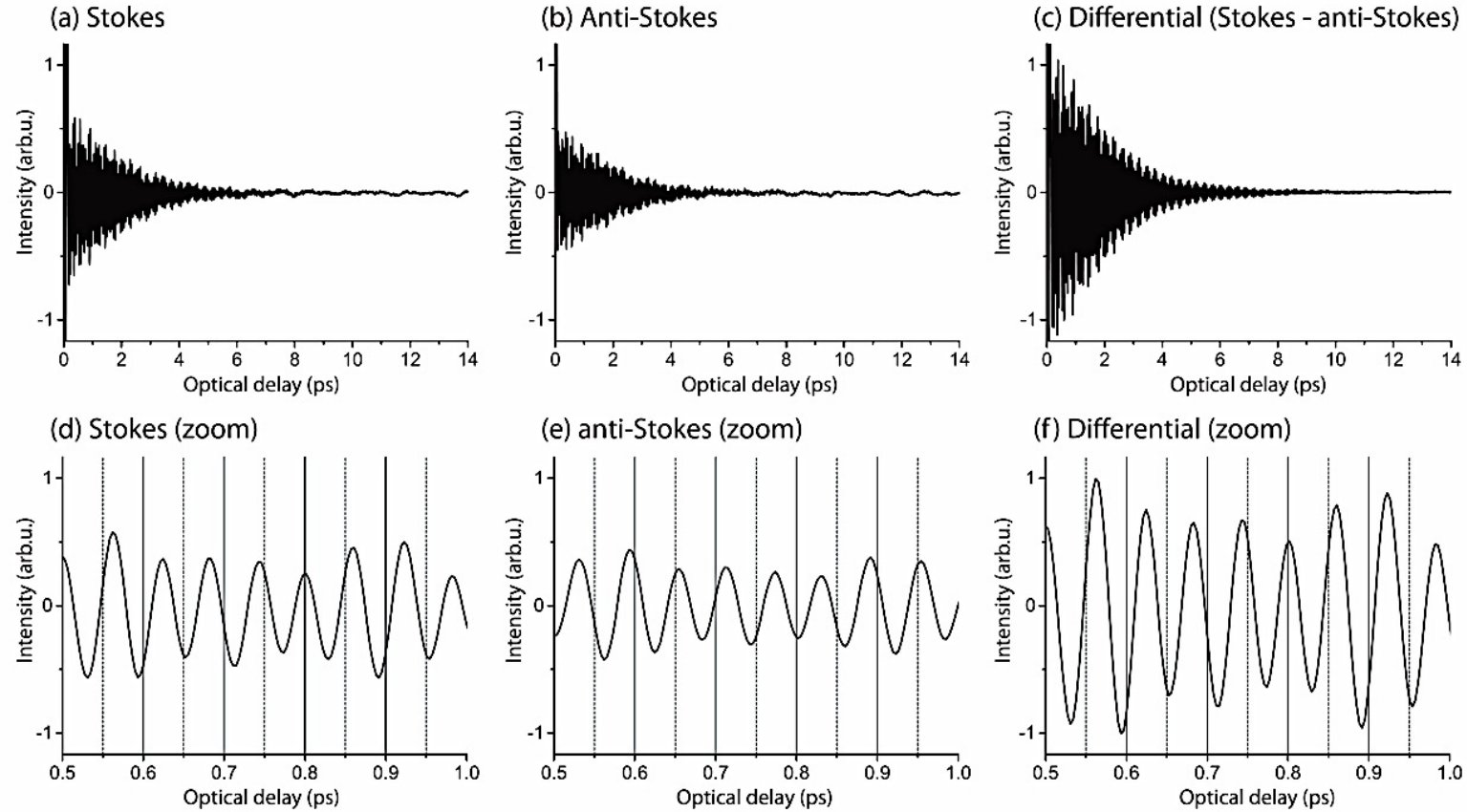

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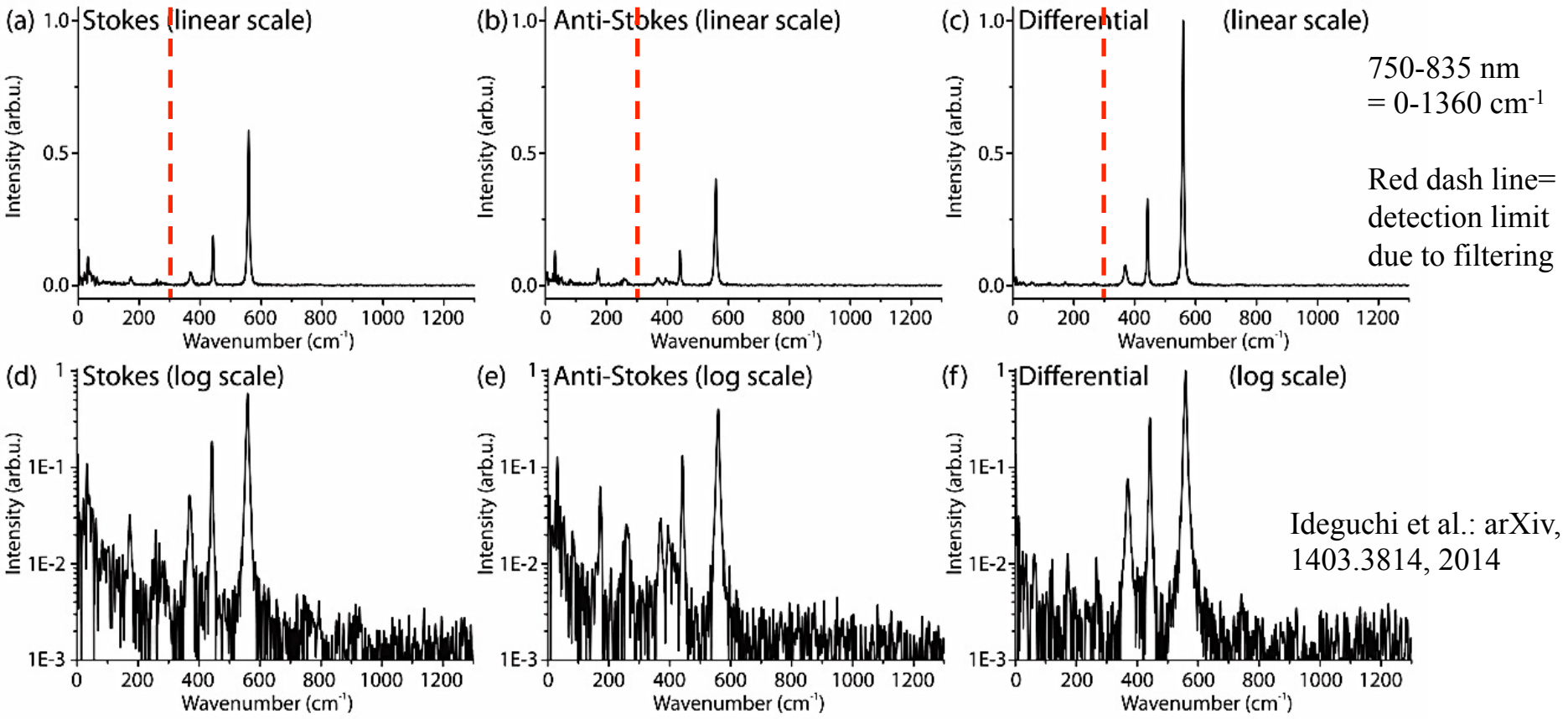

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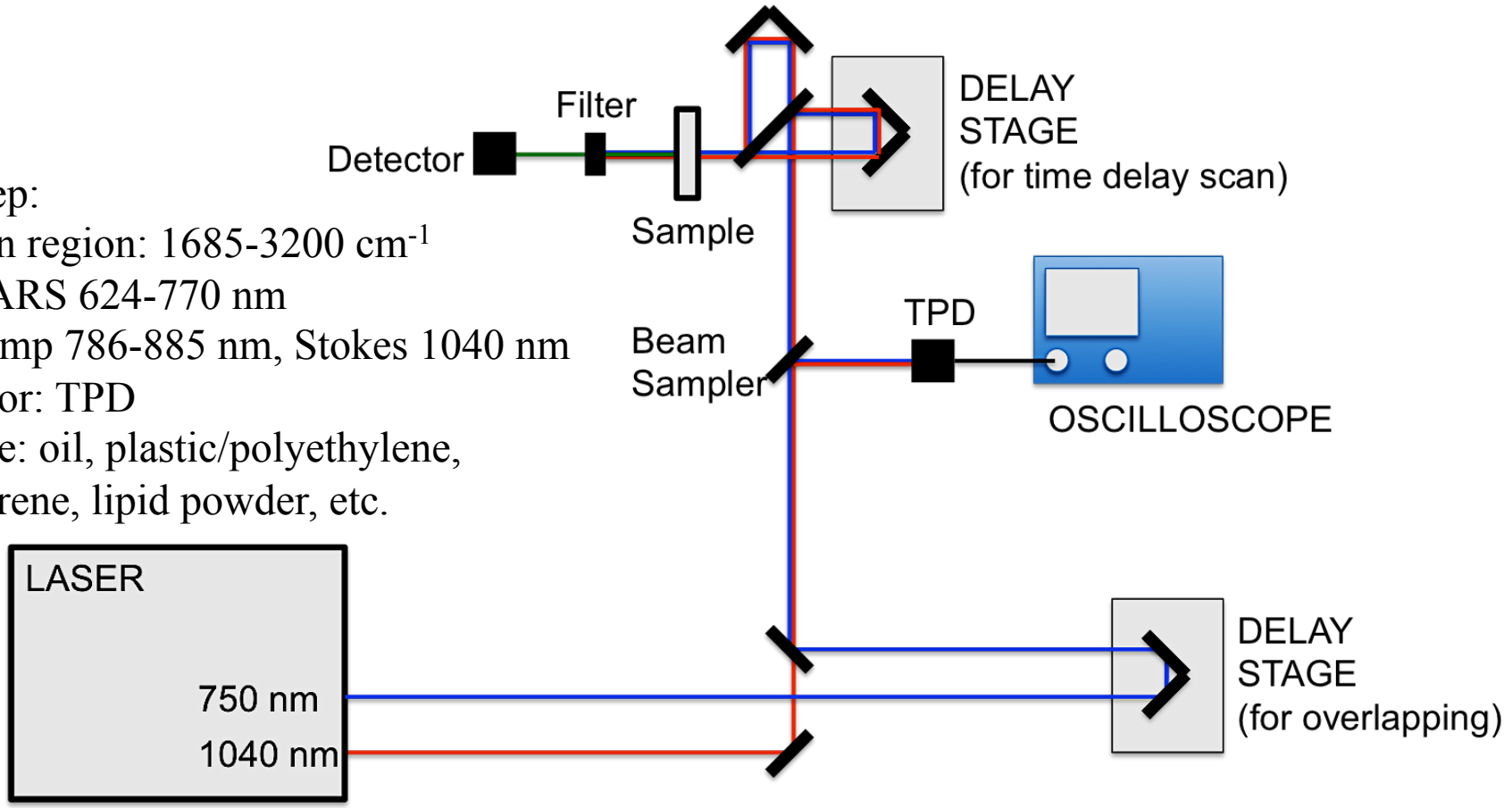
First step:
- Raman region: 1685-3200 cm^{-1}
  CARS 624-770 nm
  pump 786-885 nm, Stokes 1040 nm
- detector: TPD
- sample: oil, plastic/polyethylene, polystyrene, lipid powder, etc.



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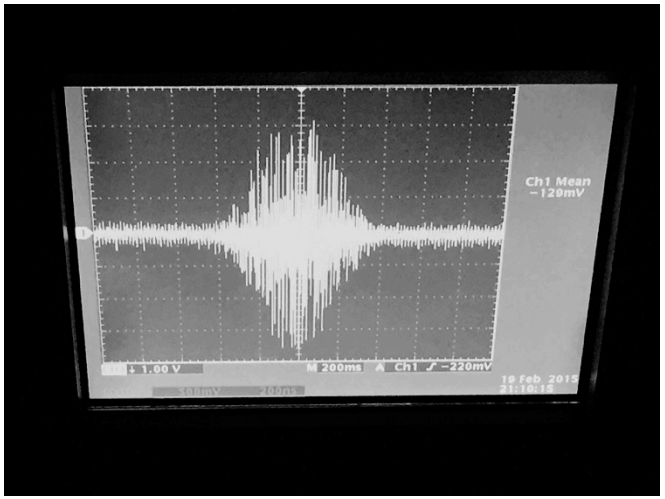
Only pump (750 nm)



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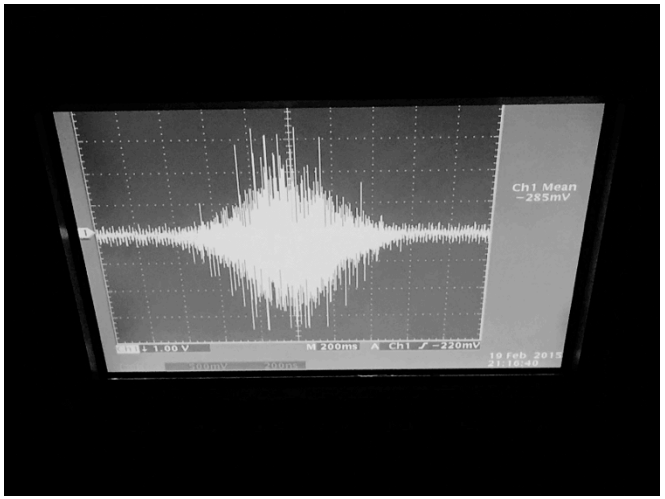
Only Stokes (1040 nm)



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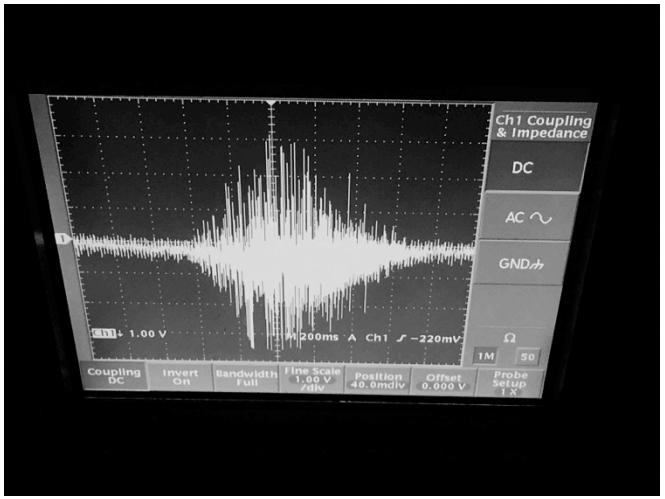
Both (750 nm and 1040 nm)



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Next steps:
- program
- sample & filter
- interferogram