

IMPROVING SIGNAL-TO-NOISE OF 2D IR SPECTRA USING A HIGH REPETITION RATE LASER SYSTEM.

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We propose to build a 2D IR spectrometer based on a 30 KHz repetition rate laser system (cryo-wyvern, KM Labs) and a mid IR pulse shaper. This new shaper will allow a different waveform to be generated each laser shot. With this system we estimate that we will be able to collect a 2D spectra in less than 0.5 S. This talk will focus on the laser system and the pulse shaping methodology.