

## Signal-Pressure Curves of Cascaded Four-Wave Mixing in Gas-Filled Capillary by fs Pulses

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**Abstract:** The theoretical framework for the cascaded four waves mixing (CFWM) in gas-filled capillary by fs pulses is constructed. Based on the theoretical framework, the signal-pressure curves (SPC) of the CFWM in gas-filled capillary by fs pulses are calculated. With a comparison between the theoretical and experimental SPC we have discussed the influence of the walk-off and phase modulation on the SPC. At the same time, we have discussed the possible origin of the first three peaks of the SPC.

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Key words: gas-filled capillary, fs pulses, cascaded four-wave mixing, signal-pressure curves

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