

Enhanced Nonlinear Spectral Broadening in Multi-Pass Cells Using Molecular Gases

Thursday, 1 September 2022 12:00 (2 hours)

We demonstrate enhanced spectral broadening in Nitrogen, Nitrous Oxide filled multipass cells. Contrast to atomic gases, molecular gases have stronger effective nonlinearity leading to red-shifted broadband spectrum. For comparison, the spectral span of Argon, Nitrogen and Nitrous Oxide recorded is 45, 106 and 265 nm at 15 μ J input energy.

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