Abstract Submitted
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A versatile setup for FAST CARS YUJIE SHEN, DMITRI VORONINE, ALEXEI SOKOLOV, MARLAN SCULLY, Texas AM University — We report a versatile setup based on the femtosecond adaptive spectroscopic techniques for coherent anti-Stokes Raman scattering (FAST CARS) [1]. We optimize the pulse shape and delay by manipulating the pump/Stokes and probe beams separately using two mirrors in a 4f pulse shaper. Our setup can be easily switched between the collinear single-beam and the noncollinear two-beam configurations without much effort in alignment. We demonstrate the capability for investigating both transparent and highly scattering samples by detecting transmitted and rejected signals, respectively. [1]. Y. Shen, D. V. Voronine, A. V. Sokolov, and M. O. Scully, *Rev. Sci. Instr.* **86**, 083107 (2015).

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