

Abstract Submitted  
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**Simple setup for hybrid coherent Raman microspectroscopy**

KAI WANG, Texas A&M Univ, JIAHUI PENG, DMITRY PESTOV, MARLAN SCULLY, ALEXEI SOKOLOV, TEXAS A&M UNIV, INST QUANTUM STUDIES TEAM — We demonstrate a femtosecond-oscillator-based system for coherent anti-Stokes/Stokes Raman scattering microscopy, wherein impulsive Raman excitation is combined with narrowband, time-delayed, and therefore, background-free probing. We show that this simple technique can be used to identify chemicals. This work is supported by the Office of Naval Research, the Army Research Office, the Texas Advanced Research Program (Grant No. 010366-0001-2007), the National Science Foundation (Grants No. PHY 354897 and 722800), and the Robert A. Welch Foundation (Grants No. A-1261 and A-1547).

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