

## OPTICAL FREQUENCY COMB CAVITY ENHANCED VERNIER SPECTROSCOPY FOR THE DETECTION OF TRANSIENT SPECIES

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When paired with cavity enhancement, interband cascade optical frequency combs offer a highly sensitive method for broadband spectroscopy. We present a new method for the detection of UV photolysis-generated transient species using cavity enhanced Vernier spectroscopy with a mid-IR interband cascade frequency comb. The cavity is used to generate an enhanced spectrum by extending the pathlength. This technique allows for the real-time high-resolution detection of short-lived species. We will discuss the benchmark reaction between hydroxymethyl radicals and oxygen to form formaldehyde, as well as the application of this new technique for the detection of resonance-stabilized radicals.