

Abstract Submitted  
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**Real-time detection of hazardous chemicals using Swept Wavelength Resonance Raman and Coherent Anti-Stokes Raman Spectroscopy**

MILAN POUDEL<sup>1</sup>, NAGAPRATIMA KUNAPAREDDY, Naval Research Laboratory, Washington DC — Real time detection of hazardous chemicals, explosives and bacteria is still a challenging problem. At Naval Research Laboratory, we have successfully detected and identified these hazardous chemicals by using Swept Wavelength Resonance Raman Detection (SWOrRD) technique, which produces 2D Resonance Raman spectra of target sample. We are currently working on next generation hazardous detection technique via Multiplex Coherent Anti Stokes Raman Spectroscopy using high rep rate (250 KHz) ytterbium laser. Preliminary results on the detection and identification of various chemicals, explosives & explosive precursors will be presented.

<sup>1</sup>\* ASEE Fellow

Milan Poudel  
Naval Research Laboratory, Washington DC

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