



RAMiTS



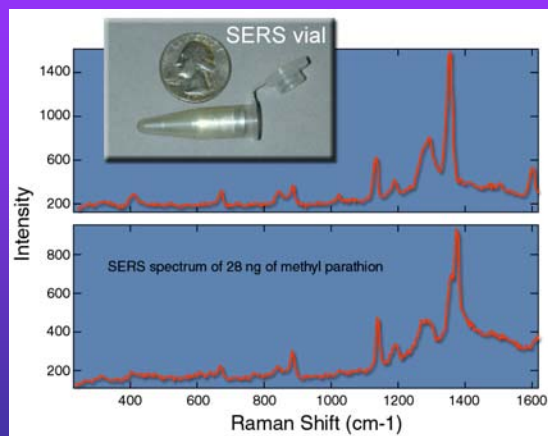
RAMan Integrated Tunable Sensor

for Automated Chemical Identification in the Field

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A battery operated, field-portable Raman instrument has been developed by scientists and engineers at the Oak Ridge National Laboratory (ORNL) for the automated identification of hazardous materials. Using this instrument, it is possible to detect the vibrational signature of the chemical species that are present. Based upon this chemical signature, an automated chemical identification can be performed within seconds.

- The heart of the instrument is an acousto-optical tunable filter (AOTF), which is a solid-state, high throughput optical bandpass filter, for wavelength selection.
- High-speed wavelength selection using an embedded computer system, rapid wavelength selection can be achieved (~100 microseconds).



- Easily portable device for identification of unknown chemicals in most environments.
- Capable of measuring through bottles plastic bags, colored glass, etc.
- Rugged construction to withstand field usage.
- Chemically resistant and watertight housing allows use in hazardous environments.
- Optimized for single operator usage.



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