

Identification of Explosives using the Foram-785

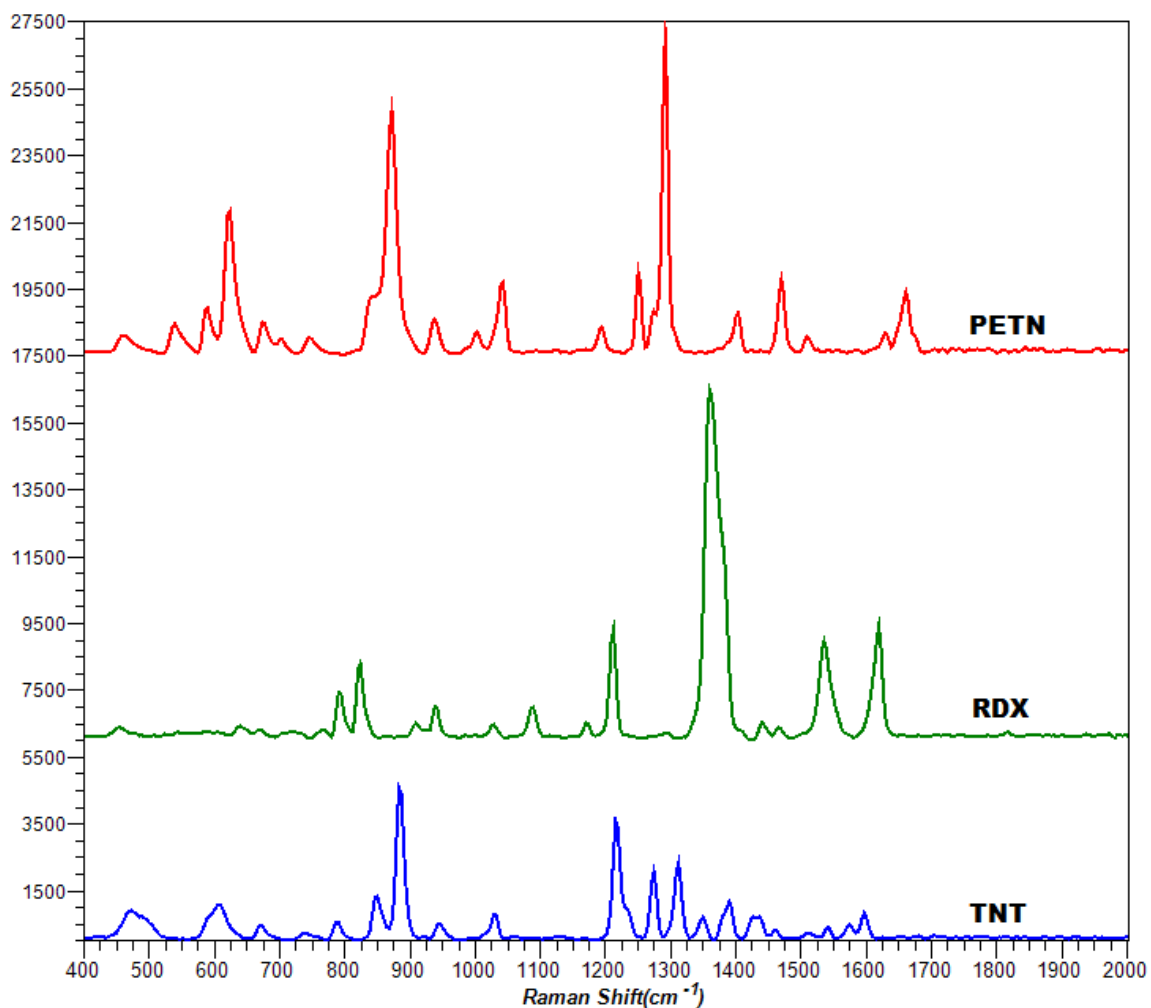
The worldwide threat from terror activities has increased steadily over the last 2 decades. In particular Improvised Explosive Devices (IED's) provide a unique threat. The need for rapid identification of explosive residues both pre and post explosion as part of a Homeland Security Program is thus paramount.

Presumptive tests are the simplest examination carried out on explosive substances but they lack specificity. Field techniques such as Ion Mobility Spectroscopy (IMS) are expensive and can be prone to false positives. Whilst traditional Mass Spectrometry techniques, are expensive, and difficult to make field deployable.

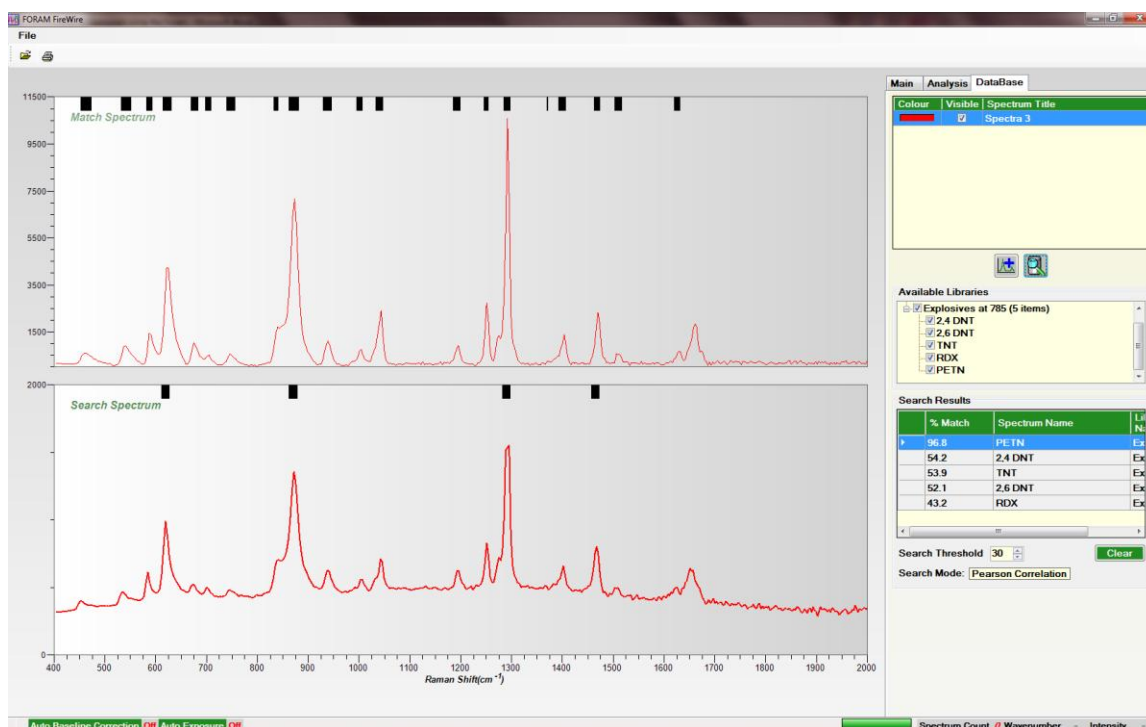
One of the newer technologies to identify explosive residues is Raman spectroscopy.

The Foster & Freeman Foram-785 Portable Raman System provides fast and non-destructive analysis of explosives and importantly is able to identify a specific explosive due to the "signature" spectrum that the explosive gives. It is able to get positive ID of particles < 3 microns in size.

Below are spectra of 3 high explosives, each showing a unique fingerprint of Raman peaks:



The following screenshot is of an unknown residue “blob” being identified as PETN :



Sales Support and Feedback

Foster + Freeman welcome feedback from Customers regarding this product. Please contact one of our offices if you would like to pass on your comments. Foster + Freeman are pleased to offer advice, installation, training and on-site maintenance worldwide for all of their products.

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