

News from Renishaw

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Raman spectroscopy: a vital tool in the fight against crime

Renishaw is to reveal new, cutting edge solutions to challenging forensic problems at the upcoming 5th European Academy of Forensic Science conference in Glasgow.

Forensic challenges overcome

Renishaw scientists have developed innovative technologies and novel methods to solve difficult forensic problems. StreamLine™ Plus imaging has been used to tackle previously difficult and time-consuming everyday issues faced by the forensic community. Two such issues are the non-destructive composition analysis of suspected illegal narcotic tablets, and crossing ink lines sequencing on questioned documents. The small sampling volume and high chemical sensitivity afforded by this novel Raman method allows such challenging requirements to be addressed at unparalleled speeds.

Reliable solutions to real situations

Blind trials indicate that the Renishaw StreamLine™ Plus imaging is 3 times more successful than traditional techniques in determining the deposition order of crossing ink lines. Unambiguous chemical characterisation is coupled with minimal sample preparation, contact free laser interaction and speedy analysis, to provide a complete solution for ink analysis. Michael Ansell, an independent forensic document analyser with over 30 years of experience, agrees that StreamLine™ Plus "is proving very useful in current case work". The technique can be applied with equal success to printer inks, making it the most comprehensive ink analysis tool available.

High specificity across a broad range of evidence types

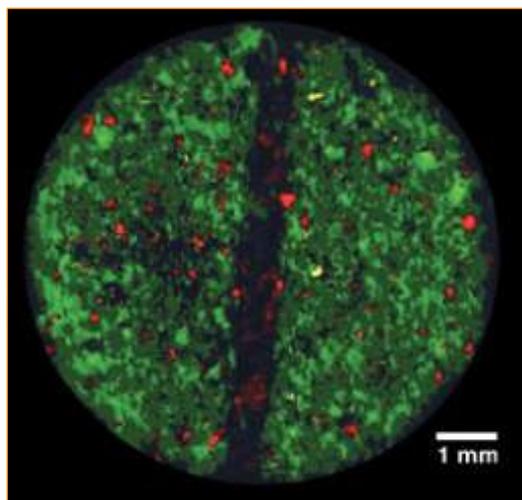
Many forensic challenges, where identification of micro-contaminants over large areas is fundamentally important, can be overcome;

- explosives detection on fabrics
- analysis of narcotic micro-particles in fingerprints
- investigating the chemical composition of unknown tablets

The high specificity of StreamLine™ Plus can therefore be applied to many of the problems facing the forensic community, both now and in the future.

Admissible evidence

In addition to being adopted by many forensic institutions, unequivocal Raman data have contributed to the outcome of high profile fraud cases. StreamLine™ Plus is becoming increasingly accepted in the forensic field as an invaluable tool and is supplementing or replacing more established methods such as infrared analysis. The easy to understand images produced by StreamLine™ Plus enable results to be presented and interpreted by non-experts, vital in court case scenarios.



StreamLine™ Plus image of ecstasy tablet

- No sample preparation
- Automated analysis of data determines chemical components
- 'Red' component identified as MDMA ('ecstasy')

Come and talk to us at the European Academy of Forensic Science 2009 conference

Renishaw will be exhibiting at EAFS 2009 in Glasgow (8th September 2009).

Visit us at EAFS to see how Renishaw can help solve your forensic problems; or contact your local Renishaw Raman representative. www.renishaw.com/contact

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