

FORENSICS APPLICATIONS

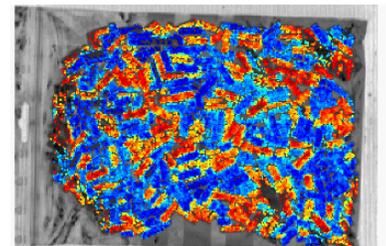
The utilisation of non-destructive spectroscopy is increasing in order to augment traditional forensics expertise. Hyperspectral imaging, combining imaging technology and spectroscopy, is of major help in forensics labs for investigating a large variety of samples. The authenticity of documents, bank notes, investigation of crime scene evidence as well as the composition of chemical substances (e.g. drugs) can be quickly screened and analyzed on large sample sets. SPECIM and UMBIO combined their effort to present a turnkey hyperspectral Chemical Imaging Analyzer **SisuCHEMA – Breeze**, developed especially for forensics applications.



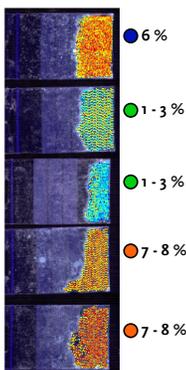
SisuCHEMA - Breeze

Screening of confiscated drug: Qualitative analysis

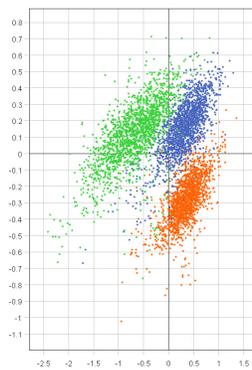
Analysis of plastic bag with Alprozalam tablets, which is more known as Xanax. This anti-Anxiety medication is a highly addictive substance, classified as drug. Two different types of tablet can be detected through their packaging material in a few seconds by SisuCHEMA - Breeze.



PLS-DA Model - Contour 2D (T)



PLS-DA Model - Scatter 2D (T)



THC

- 1 - 3 %
- 6 %
- 7 - 8 %

Raw material (Cannabis leaves): Quantitative analysis

THC quantification in cannabis and hashish is crucial as it is the main psychoactive substance contained in the derivated drug. Those drugs are the most widely spread all around the world and THC concentration varies depending on the Marijuana part used to make the drug (varies from 2 to 21%). Our SisuCHEMA – Breeze Chemical Imaging Analyzer is able make a quick and accurate quantification of it without any sample preparation.

Powder concentration: Quantitative analysis

Amphetamine is spread all around the world and is classified as a drug. Powders containing its active principal ingredient are under the investigation of numerous forensics labs and a quick and accurate estimation of its concentration is an asset.

