

Analyse de stupéfiants par spectroscopie infrarouge



Identification de drogues: Où et qui



Lieux d'utilisation

- Festivals
- Discothèques
- Postes de police
- Douanes (Frontières, aéroports,...)

Laboratoire d'analyse

- Laboratoire médico-légal
- Laboratoire de chimie



UK: Evidential Drug Identification
Testing in Police Stations

Utilisateurs

- Police et gendarmerie
- Laboratoires
- Prévention des risques

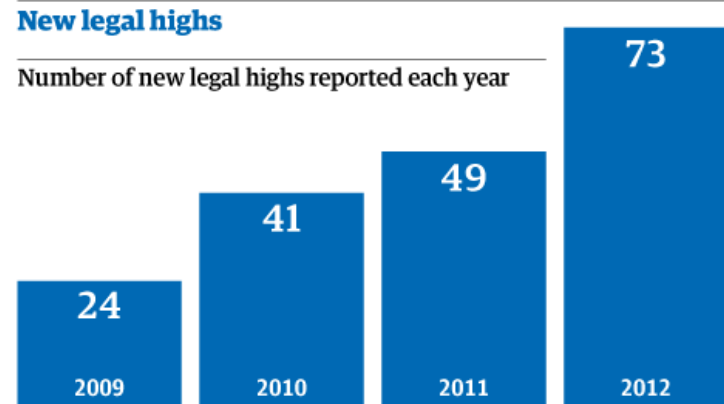
Identification de drogues: Substances



- **Drogues illégales** (morphine, héroïne, amphétamines, cocaïne...)



- **“Legal Highs”/New Psychoactive Substances (NPS):** nouvelles substances mimant l’effet de drogues illégales sans être (encore) interdites



EMCDDA/EUROPOL
Image: Guardian Graphics

Bénéfices de l'infrarouge pour l'identification de drogues



- Temps d'analyse court (pas de temps d'attente d'un résultat laboratoire)
- Simple à utiliser, pas de savoir-faire technique requis
- Pas de réactif chimique ni de solvant
- Identification indépendante de l'aspect visuel
- Résultats fiables et précis
- Aucune préparation d'échantillon
- Mise à jour des bases de données facile avec des spectres référence de nouvelles drogues
- Identification d'autres substances que les drogues (produits de coupage, „pseudo-drogues“, produits chimiques)

Partenaire stratégique: TicTac



- Fournisseur de la base de données commerciale "TicTac" pour identification de drogues via aspect visuel (sur PC, via internet/intranet, sur portable)
- Base de données reconnue et largement utilisée dans le monde entier
- Mise à jour régulière des dernières substances arrivant sur le marché mondial

The screenshot shows the "Identify Drug" section of the TICTAC net website. The page has a blue header with navigation links: "Identify Drug", "Drug Info", "News", "About", "Help", and "TICTAC net (local link goes here)". The main content area is titled "Identify Drug (use one of the options below)". It contains four main input sections, each with a "Go" button and a "Click here to see example" link:

- Tablet markings:** "If you can enter the markings for a Tablet:". Includes input fields for "Side A" and "Side B", and a radio button for "Is this the whole marking?" with options "Yes" and "No/Not Sure".
- Capsule markings:** "If you can enter the markings for a Capsule:". Includes input fields for "First Part" and "Second Part", and a radio button for "Is this the whole marking?" with options "Yes" and "No/Not Sure".
- Logo description:** "If you can describe the logo:". Includes a text input field for "Logo description".
- Product name:** "If you know the name:". Includes a text input field for "Name" and checkboxes for "Tablet" and "Capsule".

At the bottom, there are two additional input fields: "Accession number" and "Logo number", both with "Go" buttons. A bracket on the right side of these fields is labeled "FOR OFFICE USE ONLY".

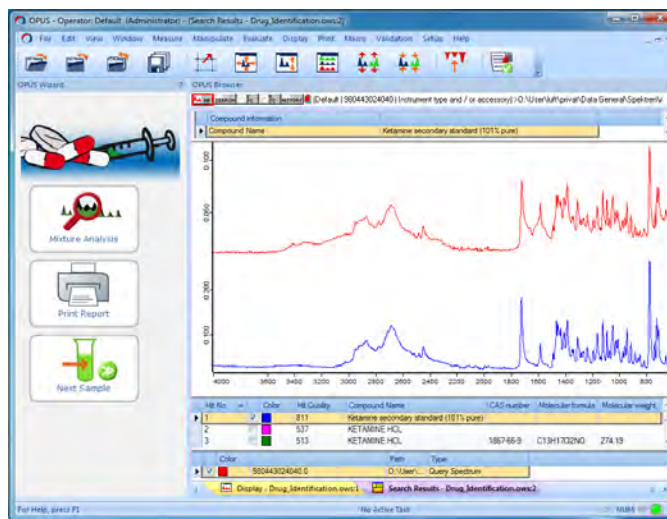
Kit d'identification de drogues



- Spectromètre ALPHA robuste et portable avec interface de mesure ATR



- Logiciel intuitif avec une interface dédiée à l'analyse de stupéfiants
- Analyse de mélanges



- Librairie spectrale avec des drogues et des produits pouvant être confondus ou mélangés à des drogues

>26,000 entrées

- Base de données optionnelle (TICTAC)



- Flyers



Drug Testing with FT-IR

- Home Office Accredited by CAST (Centre for Applied Science and Technology) for the Identification of Ketamine

The new FT-IR Drug Testing Kit quickly and reliably identifies legal and illegal substances using infrared spectroscopy, and is ideal for law enforcement, security and safety organisations. Save time and money by conducting your own analysis in-house or on the road.

Infrared spectroscopy (FT-IR) is ideal for identifying unknown substances. The technique is fast, easy and versatile, and can analyse solids, liquids, pastes and gases. Unknown samples can even be identified from residues, which is vital when sampling drugs that may have impurities, fillers or cutting agents.

Irrespective of visual appearance or form, substances are quickly identified from their unique infrared spectrum, which is automatically matched to a database, just like identifying a human fingerprint. Each analysis takes less than a minute, and requires no sample preparation or additional chemicals or consumables.

Bruker DPUS software also allows you to create your own fully extensible database to use alongside the commercial databases.

Benefits of FT-IR

- No more waiting for results from the lab
- Fast analysis time - less than a minute
- Unambiguous identification, regardless of visual appearance
- Portable, accurate results
- Easy to use - no specialist skills required
- No sample preparation
- No chemicals or solvents needed

Drug Library Database

TICTAC Communications Ltd have produced a highly specialised Drug Library, containing spectra of legal and illegal drugs, not available from commercial vendors. The library is regularly updated to include new substances emerging on the market.

Many additional spectral libraries are available including the Complete ATR library which contains 26,000 spectra, consisting of polymers, chemicals, forensics and pharmaceutical compounds.

Process

Activated Total Reflection (ATR) sampling requires no sample preparation. The technique is so fast, it can be conducted by anyone and anywhere.

Simply place the sample on the ATR crystal, a spectrum is then automatically generated and compared to the library to find the best match. The results are displayed on the screen, and the user can print out a hard copy or save the results on an easy to interpret page.

Mobile and In-House Systems

Both instruments use the same technology and software, and are both accredited by CAST for the identification of ketamine.

Alpha

- Designed primarily for indoor use, e.g. in a custody suite
- Connects to a computer with footprint the size of an A4 sheet of paper
- Weight less than 7kg
- PC required for software operation
- Accessories also available for mobile operation, including wireless adaptor, attachable tablet PC, battery pack and carry case.

Mobile-IR

- Completely portable, designed for use directly at an incident
- Weight 50kg
- Ruggedised shell to IP67 standards
- Embedded PC
- Powered by internal battery, mains or 12V vehicle power source


Contact us for more details:

- Call us on 024 7688 6200
- Email info@bruker.co.uk

Innovation with Integrity

FT-IR

- Témoignages client:



SCIENTIFIC INVESTIGATIONS
POLICE HQ
PORTISHEAD, BRISTOL
BS20 8QJ

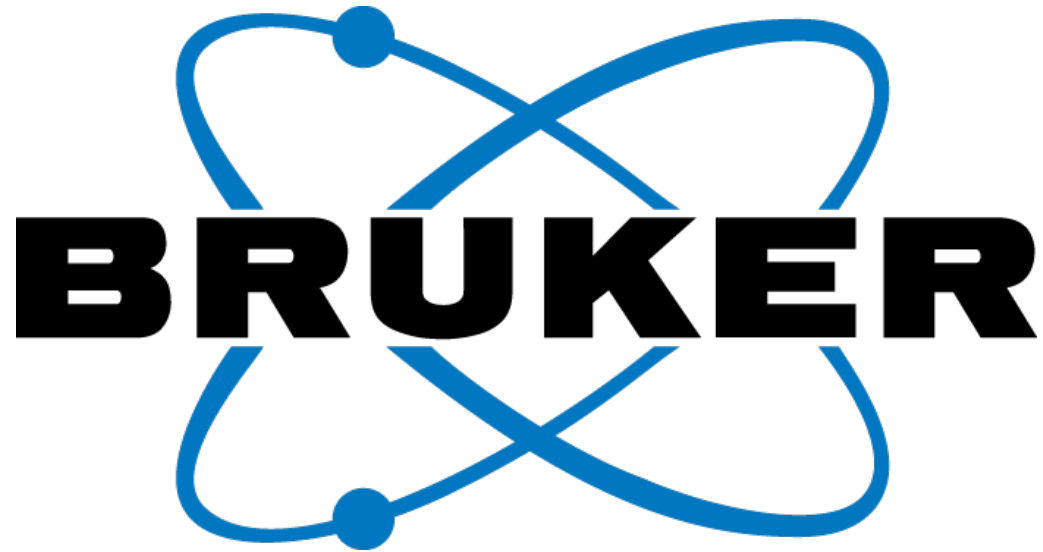
We have been using the Bruker Alpha FT-IR as a drug testing instrument for over two years now. The Alpha IR was first used extensively within the drugs operation at the Glastonbury Festival with great success by giving instant results for substances which we could not previously test thereby cutting down on the custody times for offenders.

We have found that the Alpha IR is very proficient as a screening tool for legal highs and other substances and has proved instrumental in assessing submissions to forensic drug testing laboratories thereby saving costly analysis charges.

Now the Home Office has approved the Alpha IR as a presumptive testing instrument for ketamine we are utilising it to support cases in Magistrates' Court.

The Alpha IR has shown itself to be an invaluable tool that has been of great assistance to us.

**Mrs Evelyn Mason
Drugs and Forensic Management
Avon & Somerset Constabulary**



www.bruker.com