RMI
ANALYTICAL & TESTING INSTRUMENTS

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Invitation to LaborEXPO:
Overview of Exhibited Devices

NIRLAB
Identification of Sprayed Cannabis Products



New RMI Website

LABOREXPO
VELETRHY VYBAVENÍ PRO LABORATORNÍ A PROCESNÍ ANALÝZY
2.–4. ČERVEN 2026 • HALA 3 • PVA EXPO PRAHA – LETŇANY

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Invitation to LaborExpo



The **LABOREXPO 2026** trade show will take place **June 2–4, 2026,** in **Hall A3** at the PVA EXPO PRAHA – LETŇANY exhibition center. At our **booth No. 2**, we'll showcase not only state-of-the-art equipment for laboratory and field analysis, but also a wide range of consumables.

At our booth, you'll be able to view **selected instruments and consumables** and **discuss** your specific needs with our specialists. We'd be happy to discuss specific applications with you and propose suitable, customized solutions. We'll also introduce you to our request system for consumables, which facilitates communication and speeds up the processing of your requests.

Overview of Exhibited Instruments

ProSpector 3 MAX—the most powerful handheld ED XRF spectrometer, including He microflushing

ProtectIR – a new generation of portable (2.2 kg) FT-IR spectrometer with a diamond ATR

TruDefender FTX – a mobile "handheld" FT-IR spectrometer with ATR from Thermo Scientific

XplorIR – a unique mobile "handheld" FT-IR spectrometer for the automatic identification and quantification of gases and vapors, including mixtures

VipIR – **New** combined mobile FT-IR/Raman spectrometer with a flexible armored probe and ATR, capable of simultaneously measuring IR and Raman spectra from a single location on a small sample. AI algorithms for automatic substance identification

FirstDefender RMX - a powerful, pocket-sized Raman spectrometer with an armored probe for security applications from Thermo Scientific

Defender 1064 - a handheld Raman spectrometer for security applications with a 1064 nm laser excitation

VIAVI microNIR Spectrometer – a handheld spectrometer for rapid plastic identification

NIRLAB—handheld NIR spectrometers for quantitative analysis of cannabis products (THC, CBD, CBG content, water activity, etc.) and quantitative analysis of selected drugs

MX908 - mobile mass spectrometer for security applications - trace analysis of highly hazardous substances

Pendar X10 – a unique stand-off Raman spectrometer capable of measuring from a distance of up to 200 cm and featuring hardware-based fluorescence suppression

ThreatID – a portable "suitcase-style" FT-IR spectrometer with ATR and a gas cell

Mobile equipment for field analysis



VipIR

NIRLAB – identification of cannabis products sprayed with synthetic cannabinoids

The issue of analyzing cannabis samples sprayed with synthetic cannabinoids.

Recently, there has been intense discussion in the Czech Republic regarding CBD and CBG cannabis plants sprayed with synthetic cannabinoids, particularly the cannabinoid PINACA. Field identification of these samples presents a relatively complex challenge. In the laboratory, GC-MS or LC-MS techniques are most commonly used.

From the perspective of the analysis itself, these are not simple samples, for the following reasons:

1) Highly variable plant material

2) The samples contain a broad spectrum of organic compounds, including both volatile and higher-boiling-point substances. The substance of interest is sprayed onto their surface. During extraction or when attempting to "wash" these substances off the surface, other substances are always co-extracted. Similarly, when wiping the surface, cannabis resin is also removed at the same time.

For these reasons**, direct analysis using portable MS instruments** with swab sampling and thermal desorption (such as **the MX908**) **is not suitable**—a mixture of substances is always collected, and analysis without a separation step is not possible. At the same time, it is very difficult to wipe off a truly small amount, and as a result, a larger quantity of substances is introduced into the spectrometer, necessitating a cleaning step. However, this technique works well for "trips"—paper strips impregnated with synthetic drugs (a simple mixture or, in some cases, only the pure substance is wiped off or leached out).

In most cases, **direct Raman spectroscopy cannot be used either**, as the substance of interest is present in a thin layer on plant material. For some samples, identification on the surface was successful using the **Pendar X-10** instrument, but only in exceptional cases and with very good focusing on the sample. Unfortunately, the SERS technique cannot be used effectively either—a number of other substances that interfere with the analysis are always washed away as well.

Reliable field identification is possible using GC-MS (**the Griffin 510** or 510x portable GC-MS), but it requires sample preparation in the field, well-trained personnel, and the analysis is not particularly fast.

NIRLAB – AI Solutions for Drug Analysis

NIRLAB technology can be used for rapid identification of these samples. It combines **NIR spectroscopy with cloud-based AI algorithms**. The NIRLAB system is capable of effectively **identifying "suspicious" samples,** making it possible to efficiently sort samples in the field for subsequent laboratory analysis. The algorithms are continuously being improved through machine learning. At the same time, the manufacturer is currently working intensively on adding more samples to the database, thereby constantly enhancing the capabilities of the NIRLAB system. Today, **NIRLAB** technology enables the identification of a wide range of prohibited substances and, in particular, the on-site quantitative analysis of cannabis products (THC, CBD, CBG, and other cannabinoid content) and traditional drugs (cocaine, meth, heroin, amphetamine, MDMA, etc.).

If you are interested in more detailed information, please do not hesitate to contact us.



New RMI Websites

We're excited to announce a new feature that will make it easier for you to navigate our product offerings. We've launched two new websites featuring a clear product catalog with a modern and elegant design. Thanks to the intuitive layout, selecting products and finding information is now faster and more convenient than ever before.

The **RMI.cz** website showcases **our comprehensive range of laboratory and analytical equipment** across various fields.

www.rmi.cz



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Thank you for your support

Stay up to date on the latest news from the world of analytical technologies, discover modern laboratory solutions, and come meet us at the **LABOREXPO 2026** exhibition.

For more information, please feel free to contact us at sale@rmi.cz .

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We look forward to seeing you at booth no. 2

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