

# Rapid detection of fentanyl and its chemical analogues

## KnowItAll Raman Spectral Library from Wiley available on Mira DS handheld Raman system from Metrohm

Herisau, February 2021.

Mira DS from Metrohm with KnowItAll Raman Spectral Library (Handheld) from Wiley combines a sensitive analytical instrument with the largest libraries available on handheld Raman systems. KnowItAll's Controlled and Prescription Substances Library contains over 20 fentanyl analogues. Mira DS is demonstrated here to have great chemical specificity for correlation matching of these slightly different species. This accuracy, combined with Mira's flexible, compact, rugged form factor, makes it an ideal solution for detecting fentanyl by security teams at the border and in the field.

### The problem with analogues ...

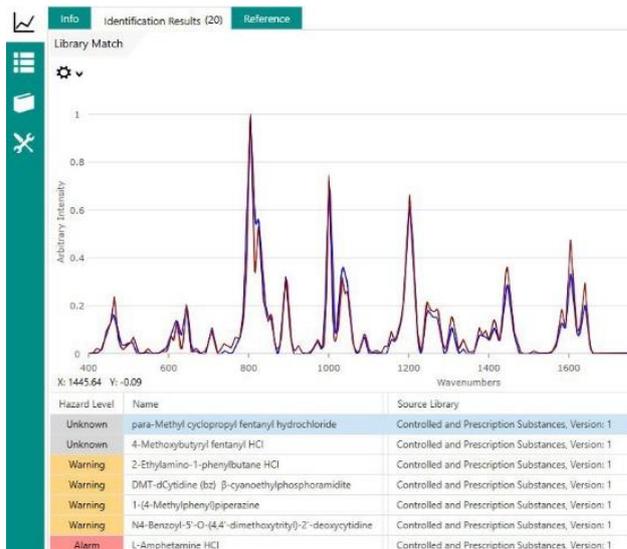
Identification of fentanyl is difficult, as fentanyl is just one of a large class of molecular analogues. As a so-called fingerprint technique, Raman spectroscopy is very sensitive to minor structural changes within a group of analogues. This puts the spotlight on databases used to identify the compound. If the database is too small, a fentanyl analogue might go undetected.

### is solved

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The KnowItAll Raman Spectral Library (Handheld) from Wiley is available on Mira DS. Combined with Metrohm Raman's proprietary Illicit Library, Mira DS has a library capacity of >20,000 entries. The KnowItAll Raman Spectral Library (Handheld) from Wiley includes over 19,500 entries, the largest available on the market, available in 6 sub-libraries:

- Mira Lib KnowItAll Controlled and Prescription Substances
- Mira Lib KnowItAll Flavors and Fragrances
- Mira Lib KnowItAll Nutraceuticals



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## PRESS RELEASE FOR IMMEDIATE PUBLICATION

- Mira Lib KnowItAll Inorganics and Organometallics
- Mira Lib KnowItAll Polymers, Monomers, and Processing Chemicals
- Mira Lib KnowItAll Organic Chemicals

Mira DS is designed specifically for non-technical users with easily interchangeable Smart Tips, intuitive screen interface, and a straightforward guided workflow driven by Smart Acquire. From login to results is three simple steps. Library control is just as simple. A user can enable all libraries to access ID for >20,000 compounds or select a smaller library for fast, accurate matching.

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### About Metrohm

Metrohm is one of the world's most trusted manufacturers of high-precision instruments for laboratory and process analysis. The company was founded in 1943 by engineer Bertold Suhner in Herisau, Switzerland, where it is headquartered to this day. Metrohm offers a comprehensive portfolio of analytical technologies ranging from titration and ion chromatography to near-infrared and Raman spectroscopy, as well as several other techniques. Metrohm sells its products and provides services through its own local subsidiaries and exclusive distributors in more than 120 countries worldwide. Our mission in a nutshell is helping customers from virtually every industry analyze and maintain the quality of their products at every stage in the manufacturing process and beyond. Since 1982, Metrohm has been owned 100% by the non-profit Metrohm Foundation. This foundation keeps to its purpose to support charitable, philanthropic, and cultural projects in eastern Switzerland and, above all, ensure the independence of the company.

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