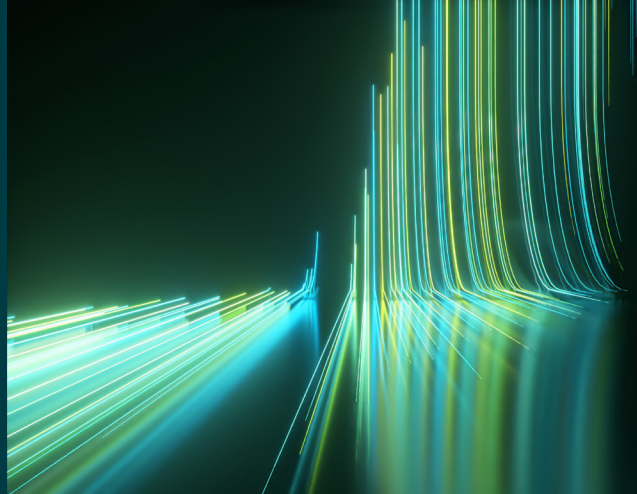


WILEY

Spectral Databases

From the leader in spectral data



Raman - Drugs - Wiley

Spectra – 43

This database is only available as part of the KnowItAll Raman Spectral Library subscription.



Description

Raman spectroscopy is a powerful analytical technique used throughout drug analysis, from research and development to quality control. It can estimate the molecular activity of drugs and establish physicochemical properties such as partition coefficients. The technique identifies and monitors different polymorphic forms of active pharmaceutical ingredients, which can have varying properties like solubility, stability, and bioavailability that directly affect drug performance. One of its key advantages is that samples don't require extraction or preparation, making it both rapid and non-destructive.

Raman spectroscopy applications span from basic drug characterization to practical quality assurance. It can analyze batches of hundreds of whole tablets or capsules in minutes, quantifying active ingredients. The technique is used to detect counterfeit drugs and analyze the distribution of ingredients within drug formulations. It is employed during drug manufacturing to ensure drug purity, identify chemical structures, and maintain consistent product quality throughout development and production.



Applications

- Pharmaceuticals
- Toxicology and forensic science
- Quality control
- Counterfeit drug detection
- Academic and industrial research on opioid chemistry
- Process analytical technology (PAT)



Additional information

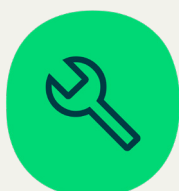
When it comes to spectral analysis, the more data you have the better. Wiley spectral databases provide much more information than simply the spectrum. Database records include the following valuable details when available:

- Chemical structure
- Chemical name
- Exact mass
- Formula
- InChI/InChIKey
- Molecular weight
- SMILES
- Instrument name
- Technique



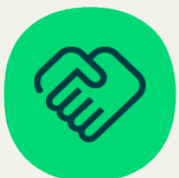
Compound coverage

- Synthetic opioids
- Synthetic analogs



Technique

The spectra were generated using Progeny 1064 handheld Raman spectrometer. The data was collected in the region of 150-2475cm⁻¹.



Trusted data from a trusted source

Wiley is the authoritative source for spectral data. Our renowned databases are processed according to rigorous protocols to ensure they are of the highest quality. Qualification procedures start at data acquisition and continue throughout the database development process. Any data acquired from trusted partners is thoroughly vetted before inclusion in our collections.