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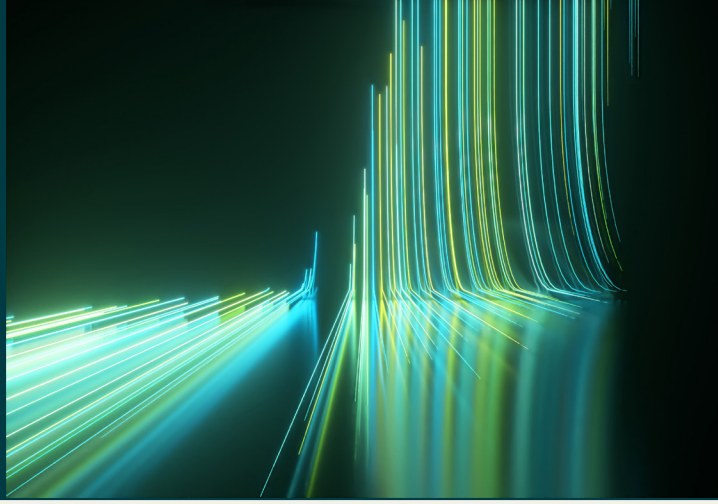
Spectral Databases

From the leader in spectral data



IR - Materials - Wiley

Spectra – 17

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

Description

Materials play a key role in modern technologies, with applications ranging from electronics to energy storage devices such as batteries and supercapacitors. Complete characterization of their chemical composition and phase is essential for materials research and manufacturing, enabling performance evaluation, stability studies, and quality assurance. Infrared (IR) spectroscopy enables the rapid characterization of inorganic materials, elucidating key structures using their vibrational signatures. This database contains IR spectra of functionalized carbon materials such as carbon nanostructures and doped graphene oxide, as well as inorganic semiconductor materials.

Applications

- Materials research
- Semiconductor research & development
- Energy storage devices
- Electromagnetic shielding

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 name
- Instrument name
- Detector
- Sample preparation procedure
- Technique
- Substrate

Compound coverage

- Functionalized carbon materials
- ZnO films

Compatibility

- Subscription includes KnowItAll ID Expert software for one-click basic spectral searches
- Optional: KnowItAll Analytical Edition (recommended for advanced analysis)
- Import spectra from most IR instruments for direct comparison to reference spectra. For instrument compatibility, visit sciencesolutions.wiley.com/compatibility.

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.