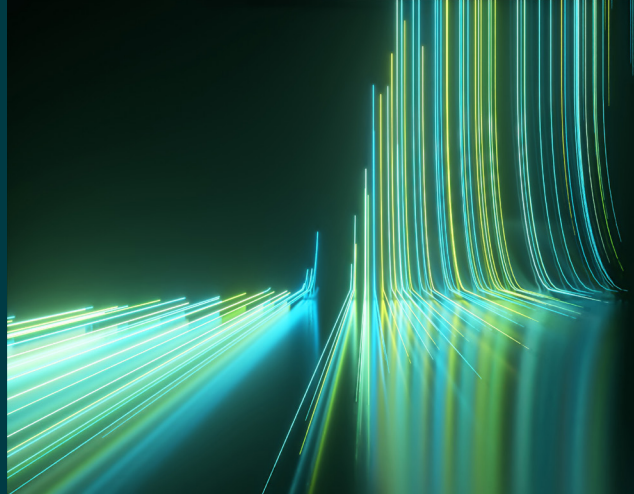


WILEY

Spectral Databases

From the leader in spectral data



ATR-IR - Materials - Wiley

Spectra – 10

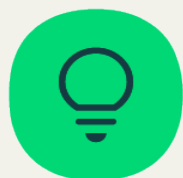
This database is only available as part of the KnowItAll IR Spectral Library subscription.



Description

Inorganic materials play a significant role in modern energy technologies, with applications ranging from electronics to energy storage devices such as batteries and supercapacitors. Their chemical composition, phases, and surface chemistry strongly influence physical properties such as stability, conductivity, and reactivity. As a result, reliable methods for characterizing inorganic materials are essential across research and manufacturing, supporting materials discovery, performance evaluation, and stability studies.

Attenuated total reflectance-infrared (ATR-IR) spectroscopy is a rapid, non-destructive technique that provides molecular-level insight based on vibrational fingerprints. With minimal sample preparation, ATR-IR enables efficient characterization of inorganic materials. This database presents ATR-IR spectra of candidate electrode-electrolyte interphase materials, facilitating research of electrochemical interfaces that are key to battery performance.



Applications

- Materials characterization
- Battery materials research
- Electrochemistry



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
- Manufacturer
- Purity
- Exact mass
- Formula
- Molecular weight
- Instrument name



Compound coverage

This database covers battery interphase materials, including:

- Lithium fluoride
- Polyethylene oxide
- Lithium carbonate
- Nickel (II) fluoride



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.