

ATR-IR - Sadtler Organometallics 1 - Wiley

Spectra - 175

Wiley is the leading producer of IR and Raman spectral databases with their Sadtler Spectral Databases, known for their high-quality.

Description

This Sadtler database of ATR-IR spectra has been compiled specifically for scientists interested in the field of organometallic chemistry and can be used by researchers to facilitate structural determination and identification of these substances.

Samples have been selected from industry and academic and research institutions in an attempt to select a cross section of compounds of interest.

The collection includes compounds with a direct carbon-to-metal bond or compounds in which the metal is bonded to carbon by a single hetero atom. For the purpose of this database, a metal is defined as any element with the exception of the noble gases, the halogens, oxygen, sulfur, selenium, tellurium, phosphorus, nitrogen, or carbon.

Additional Information

The spectra are presented with the name, molecular formula and weight, method of analysis, and source of sample. Molecular structures associated with the database are available for viewing and substructure searching.

Technique

All spectra were measured on a Bio-Rad FTS-175C Fourier Transform infrared spectrometer equipped with KBr beam splitter and a peltier cooled DTGS detector. A Smiths Detection DuraSAMPLIR™ II Diamond ATR Accessory, an in-compartment diamond attenuated total reflectance accessory, was used to produce the ATR spectra. It is configured for single bounce optics through the diamond minimizing the effects of the diamond in the 2300 wavenumber region. It has KRS5 optics yielding a full spectral range of 4000-400 wavenumbers.

This data is fully applicable to microscope FTIRs with ATR objectives as well as bench-top systems with ATR units. Samples were analyzed using the neat or film method and the solvent used in the film is methylene chloride. In some cases, the samples were ground to improve the display of the ATR spectrum.

This collection has been subject to the Sadtler Data Review Protocol™ to provide you with the highest standard in spectral data today. These rigorous qualifying procedures start at data acquisition and continue throughout the database development process.