

IR - Sadtler University Standards - Wiley

Spectra - 300

Description

The purpose of this database is to satisfy the academic need for a small convenient collection of infrared spectra of organic compounds relevant to college introductory courses on organic chemistry and the supplementary laboratory courses on experimental organic chemistry and qualitative organic analysis.

Approximately 300 spectra are contained in this database arranged in chemical class order. In addition to serving as a teaching aid, the collection of spectra affords convenient and easy access to the spectra of compounds having the desired functional group and which can be used to establish an identity through empirical comparison.

Classifications

Hydrocarbons - 36

Halogenated Hydrocarbons - 28

Nitrogen containing Compounds - 60

Amines - 18
Pyridines - 5
Quinolines - 7
Amine Salts - 11-
Oximes (-CH=N-OH) 7
Hydrazones (-CH=N-NH₂) - 2
Azines (-CH=N-N=CH-) - 1
Hydroxamic Acids - 2
Azo Compounds (-N=N-) -1
Triazenes (-N=N-NH-) - 2
Isocyanates (-N=C=O) - 3
Carbodiimides (-N=C=N-) - 2
Isothiocyanates (-N=C=S) - 2
Nitriles (-C≡N) - 6
Cyanamides (N-C≡N) - 3
Thiocyanates (-S-C≡N) - 2
Nitroso Compounds (-N=O) - 2
N-Nitroso Compounds (=N-N=O) - 2
Nitrites (-O-N=O) - 2
Nitro Compounds (-NO₂) - 3
N-Nitro-Compounds (=N-NO₂) - 1

Silicon Containing Compounds (Except Si-O) -1

Phosphorus Containing Compounds - 5 (Except P-O And P(=O)-O)

Sulfur Containing Compounds 37

Sulfides (R-S-R) - 9
Disulfides (R-S-S-R) - 3
Thiols - 3
Sulfoxides (R-S(=O)-R) - 1
Sulfones (R-SO₂-R) - 3
Sulfonyl Halides (R-SO₂-X) - 3
Sulfonic Acids (R-SO₂-OH) - 7
Thioamides (R-C(=S)-NH₂) - 2
Thioureas (R-NH-C(=S)-NH₂) - 3
Sulfonamides (R-So₂-NH₂) - 3

Oxygen Containing Compounds (Except -C(=O)-) - 49

Ethers - 22
Alcohols (R-OH) - 27

Compounds Containing Carbon Oxygen Double Bonds - 57

Ketones (R-C(=O)-R) - 6
Aldehydes (R-C(=O)-H) - 4
Acid Halides (R-C(=O)-X) - 3
Anhydrides (R-C(=O)-O-C(=O)-R) - 4
Amides - 6
Imides (R-C(=O)-NH-C(=O)-R) - 3
Hydrazide (R-C(=O)-NH-NH₂) - 2
Ureas (R-NH-C(=O)-NH₂) - 2
Hydantoin, Uracils, Barbiturates - 3
Carboxylic Acids (R-C(=O)-OH) - 10
Esters - 15

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.