



Forensic Raman Spectral Library

General Information

Data were measured on InPhotonics' RS2000 dispersive Raman spectrometer equipped with a 785 nm excitation source and fiber optic probe. Spectra were measured between 220 – 3200 cm^{-1} (Stokes shift) at better than 4 cm^{-1} spectral resolution. Instrument response was calculated with a NIST-traceable white light source and subsequently removed from all data. Frequency calibration was performed with an atomic lamp. Frequency and intensity calibrations were cross-referenced prior to each data collection session with cyclohexane peak shifts and band intensity ratios.

Compound List (Version 1.0, 243 unique materials)

Acacia	Benomyl
4-Acetamidophenol	Benzene
Acetone	Benzoic Acid
Acetonitrile	Benzoyl Norecgonine
Acetylsalicylic Acid	Benzoylecgonine
allo-Inositol	Benzyl Alcohol
Aluminum Oxide	alpha-BHC
4-Amino-2,6-dinitrotoluene	beta-BHC
Ammonium Dichromate	delta-BHC
Ammonium Nitrate	Boric Acid
Ammonium Perchlorate	Bromobenzene
R(-) Amphetamine Sulfate	1,2,4-Butanetriol Trinitrate
Anthracene	1-Butanol
Antimony (III) Sulfide	Butyl Acetate
Antimony (V) Sulfide	Caffeine
Atrazine	Calcium Carbide
Barium Carbonate	Calcium Carbonate
Barium Chlorate	Calcium Hypochlorite
Barium Nitrate	Calcium Phosphate
Barium Peroxide	Calcium Sulfate
Basic Lead Styphanate	Cannabidiol
Beeswax	Captan



Captopril	Diazepam
Carbon Tetrachloride	Diazodinitrophenol (DDNP)
Carboxymethyl Cellulose Sodium Salt	1,2 Dichlorobenzene
Carnauba Wax	1,3 Dichlorobenzene
Castor Oil	1,4 Dichlorobenzene
Cellulose Nitrate	3,5 Dinitroaniline
Chlordiazepoxide HCl	2,4 Dinitrotoluene
Chlordimeform	2,6 Dinitrotoluene
Chlorobenzene	Dichloro-ethylene
2 Chloroethyl-vinyl ether	Dieldrin
Chloroform	1,3 Dinitrobenzene
Chlorothalonil	1,2-Dinitroglycerin
Chromium (V) Oxide	1,4 Dioxane
Citric Acid	Dodecane
Cocaine	Ephedrine Hydrochloride
(-) Cocaine HCl	(+/-) Epinephrine
(-) Codeine Sulfate	Ethanol
Copper Sulfate	Ether
Cyanazine	Ethyl Acetate
alpha-Cyclodextrin	Ethylene Glycol
beta-Cyclodextrin	Fenfluramine HCl
gamma-Cyclodextrin	Fentanyl Citrate
Cyclohexane	Fluoxetine HCl
Cyclonite (RDX)	Flurazepam 2HCl
Cyclooctane	Folpet
Cyclopentane	Gelatin
R(-) Deprenyl HCl	Glacial Acetic Acid
2,4 D Acid	Glycerol
2,4 D Methyl Ester	Heptane
Dextrin	Heroin
Dextrose	Hexachlorobenzene



Hexamethylenetetramine

Hexane

Hexanes

Hexanitrostilbene II (HNS)

Hydrogen Peroxide 29-32%

Hydromorphone HCl

m-Hydroxybenzoylecgonine

p-Hydroxybenzoylecgonine

p-Hydroxycocaine

Ibogaine HCl

S(+)-Ibuprofen

Iron(II) Sulfate Heptahydrate

Iron(III) Oxide

iso-Butanol

iso-Butyl Acetate

Ketamine HCl

alpha-D-Lactose

Lead (II) Nitrate

Lead (II) Oxide

Lead (II,III) Oxide

Lead Azide and Dextrose

Lindane

Linoleic Acid

Linuron

Magnesium Carbonate

Magnesium Oxide

Magnesium Stearate

Mesityl Oxide

Mesitylene

Methadone Hydrochloride

R(-)-Methamphetamine HCl

Methanol

Methyl Acetate

Methyl Ethyl Ketone

Methyl Sulfone

Methyl Sulfoxide

(+/-) 3,4 Methylenedioxyamphetamine

(1S,2R)-N- Methylephedrine

Metribuzin

Mirex

1-Mononitroglycerin

2-Mononitroglycerin

Morphine-3-beta-D-Glucuronide

Morphine-6-beta-D-Glucuronide

Morphine Sulfate

Napthalene

Nicotinamide

Nicotine

3-Nitroaniline

Nitrobenzene

Nitroguanidine

Nitromethane

4-Nitrophenol

2 Nitrotoluene

3 Nitrotoluene

4 Nitrotoluene

Norcocaine HCl

(1S,2R)-(+)-Norephedrine

(+/-) - Norepinephrine L-Bitartrate Hydrate

Octahydro-1,3,5,7-tetranitro-1,3,5,7-terazocine
(HMX)

Octane



Oleic Acid	Silver Nitrate
Oxalic Acid	Silvex
Papaverine HCl	Sodium Azide
Pentaerythritol tetranitrate (PETN)	Sodium Benzoate
Permethrin	Sodium Carbonate
Petroleum Jelly	Sodium Chlorate
Phencyclidine HCl	Sodium Hexafluoroaluminate
Phenobarbital Sodium	Sodium Hydrogen Carbonate
Phosphorous	Sodium Hydrogen Sulfate
Poly(Vinyl chloride)	Sodium Metasilicate
Polyvinyl Pyrrolidone	Sodium Nitrate
Potassium Chlorate	Sodium Oxalate
Potassium Cyanide	Sodium Perborate Monohydrate
Potassium Dichromate	Sodium Peroxide
Potassium Nitrate	Sodium Phosphate Monobasic
Potassium Perchlorate	Sodium Sulfate
Potassium Sulfate	Sodium Tripolyphosphate
S(-)-3-PPP HCl	Stearic Acid
1,2 Propandiol	Strontium Carbonate
2-Propanol	Strontium Nitrate
(+/-) Propranolol HCl	Strontium Sulfate
(-) Pseudoephedrine	Sucrose
Pyrene	Sulfur
Pyridine	Talc
Quinine	Tetrachloroethylene
Quinine Monohydrochloride Dihydrate	Tetrahydrofuran
Quinine Sulfate	Tetryl
Rosin Gum	Delta 8 THC
Salicyclic Acid	Delta 9 THC
Silicon Dioxide	Titanium Dioxide
Silver Azide and Water	Toluene



1,1,1 Trichloroethane

1,1,2 Trichloroethane

Trichloroethylene

1,1,1 Trifluoro-5,5-dimethyl-2,4-hexadione

Trifluralin

1,3,5 Trinitrobenzene

Trinitroglycerin

Trinitrotoluene (TNT)

Urea

Xylenes

m-Xylene

o-Xylene

Zinc Oxide

Zineb