

FDM Raman Inorganics (420 Spectra)

The spectral range is 50 cm⁻¹ to 3400 cm⁻¹ and the optical resolution is about 4.3 cm⁻¹ at 1000 cm⁻¹. These spectra were run on a benchtop dispersive system with a 780 nm laser with an output of 300 mW and up to 150 mW at the sample, a fixed grating triple pass monochromator, autoexposure and white light intensity correction. ASTM compliant system tests for resolution and x-axis calibration were performed daily.

Note that the lower limit of 50 cm⁻¹ provides access to many oxide peaks.

A wide variety of oxides and oxide anions (phosphates, nitrates and sulfates, etc.) are included making this database useful to a broad audience in commercial, government and academic labs. Spectra of both anhydrous and hydrated forms are presented for many compounds.

This database has excellent coverage of many rare earth and transition metal beta-diketonate organometallic complexes and alkoxide compounds and organoboron compounds.

Most names are provided with both the molecular formula and a CAS number. Thus, unfamiliar inorganic chemical names or regional naming differences won't limit the user's ability to make good use of these excellent spectra. CAS numbers are extremely useful for locating synonyms and other chemical information on the web.

Samples from the chemical name index (name, molecular formula, CAS number):

Europium sulfate octahydrate, Eu₂(SO₄)₃·8H₂O, 10031-55-7
Europium trifluoroacetylacetonate, 52093-64-1
Europium trifluoromethanesulfonate, 139177-64-3
Europium tris(thenoyltrifluoroacetate), 14054-87-6
Ferric ammonium citrate green, FeNH₄(SO₄)₂, 1185-57-5
Ferric ammonium sulfate dodecahydrate, FeNH₄SO₄·12H₂O, 7783-83-7
Ferric citrate trihydrate, FeC₆H₅O₇·3H₂O, 17217-76-4
Ferric nitrate nonahydrate, Fe(NO₃)₃·9H₂O, 7782-61-8
Ferric oxide red, Fe₂O₃, 1309-37-1
Ferric pyrophosphate, Fe₄(P₂O₇)₃, 10058-44-3
Ferrous ammonium sulfate hexahydrate, Fe(NH₄)₂(SO₄)₂·6H₂O, 7783-85-9
Ferrous sulfate heptahydrate, FeSO₄·7H₂O, 7782-63-0
Gadolinium 2-ethylhexanoate, GdC₂₄H₄₅O₆, 19189-19-6
Gadolinium acetate tetrahydrate, GdC₆H₉O₆·4H₂O, 15280-53-2
Gadolinium acetylacetonate, GdC₁₅H₂₁O₆, 14284-87-8
Gadolinium hexafluoroacetylacetonate, GdC₁₀H₂F₁₂O₄
Gadolinium nitrate, Gd(NO₃)₃, 10168-81-7
Gadolinium oxalate, Gd₂(C₂O₄)₃, 867-64-1