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Material Database:

BCR-141R

Type Certified reference material
Producer IRMM - Institute for Reference Materials and Measurements

Package

50 g of homogeneous, powdered calcareous loam soil in brown glass bottles provided with a polyethylene insert and a screw cap

Material Powder
Reference BCR-141R
Catalog (Web) http://www.irmm.jrc.be/html/reference_materials_catalogue/catalogue/certificates_and_reports/BCR-141r_cert.pdf

Description

Trace elements in calcareous loam soil

Parameter

Analyte	Tin
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)
Result	8.3 +/- 0.3 mg / kg / 7.45 +/- 0.2 mg / kg

Analyte	Titanium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)
Result	3094 +/- 46 mg / kg / 235 +/- 13 mg / kg

Analyte	Phosphorous
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)
Result	955 +/- 50 mg / kg / 1010 +/- 65 mg / kg

Analyte	Antimony
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)
Result	1.38 +/- 0.08 mg / kg; 1.2 +/- 0.04 mg / kg / 699 +/- 25 mg / kg

Analyte	Strontium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)
Result	524 +/- 10 mg / kg / 461 +/- 9 mg / kg

Analyte	Magnesium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)

Result	7216 +/- 43 mg / kg / 5714 +/- 114 mg / kg
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Analyte	Lanthanum
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	31.8 +/- 1.09 mg / kg

Analyte	Sodium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	4027 +/- 101 mg / kg

Analyte	Chlorine
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	120.4 +/- 10.36 mg / kg

Analyte	Potassium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	g / kg (total contents / aqua regia contents)
Result	14.5 +/- 0.28 g / kg; 14.9 +/- 0.5 g / kg / 4.5 +/- 0.02 g / kg

Analyte	Iron
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	g / kg (total contents / aqua regia contents)
Result	27.3 +/- 1.0 g / kg; 25.5 +/- 2.2 g / kg / 25.85 +/- 0.40 g / kg

Analyte	Bromine
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	7.32 +/- 0.61 mg / kg

Analyte	Iodine
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	4.0 +/- 0.48 mg / kg

Analyte	Barium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents / aqua regia contents)
Result	348 +/- 14 mg / kg; 437 +/- 16 mg / kg / 143 +/- 3 mg / kg

Analyte	Arsenic
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	8.84 +/- 0.43 mg / kg

Analyte	Calcium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	g / kg (total contents / aqua regia contents)
Result	93.2 +/- 0.9 g / kg / 93.60 +/- 0.60 g / kg

Analyte	Aluminum
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	g / kg (total contents / aqua regia contents)
Result	50.9 +/- 02.2 g / kg / 19.40 +/- 1.43 g / kg

Analyte	Zinc
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	270 +/- 8 mg / kg

Analyte	Lead
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	51.3 +/- 2.0 mg / kg

Analyte	Cadmium
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	14.6 +/- 0.5 mg / kg

Analyte	Cobalt
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	10.5 +/- 0.4 mg / kg

Analyte	Chromium
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	195 +/- 7 mg / kg

Analyte	Copper
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	46.4 +/- 1.8 mg / kg

Analyte	Cadmium
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	14.0 +/- 0.4 mg / kg

Analyte	Manganese
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	683 +/- 16 mg / kg

Analyte	Nickel
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Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	103 +/- 3 mg / kg

Analyte	Mercury
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	0.25 +/- 0.02 mg / kg

Analyte	Zinc
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	283 +/- 5 mg / kg

Analyte	Copper
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	46.9 +/- 1.8 mg / kg

Analyte	Mercury
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	0.24 +/- 0.03 mg / kg

Analyte	Cobalt
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	9.2 +/- 0.5 mg / kg

Analyte	Nickel
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	94 +/- 5 mg / kg

Analyte	Manganese
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	653 +/- 16 mg / kg

Analyte	Chromium
Specification	Trace elements in Calcareous Loam Soil (Aqua regia soluble content)
Parameter	Certified value
Unit	mg / kg
Result	138 +/- 5 mg / kg

Analyte	Lead
Specification	Trace elements in Calcareous Loam Soil (Total content)
Parameter	Certified value
Unit	mg / kg
Result	57.2 +/- 1.2 mg / kg

Analyte	Uranium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	2.39 +/- 0.12 mg / kg

Analyte	Tungsten
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	3.44 +/- 0.14 mg / kg

Analyte	Thorium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	9.88 +/- 0.45 mg / kg

Analyte	Vanadium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	mg / kg (total contents)
Result	77.2 +/- 2.8 mg / kg

Analyte	Thallium
Specification	Trace elements in Calcareous Loam Soil
Parameter	Information Value
Unit	µg / kg (total contents / aqua regia contents)
Result	638 +/- 34 µg / kg / 246 +/- 28 µg / kg