

Metals

1. Metal chemistry

ID and name: OM1 material_metal_chemistry

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Chemical composition of the metal.

with the two subproperties:

1.1 Chemical composition

ID and name: OM1.1 material_metal_chemistry

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: The chemical composition of the metal with additional information.

with the eight subproperties:

1.1.1 Analytical method

ID and name: B4.1 chemistry_method

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The method used to determine the chemical composition.

Allowed values and other constraints: controlled vocabulary

1.1.2 Analysed compound

ID and name: B4.2 chemistry_compound

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: The analysed chemical compound (chemical element or oxide).

Allowed values and other constraints: controlled vocabulary, not available if a mass spectrometric-method is recorded in B4.1 Analytical method .

1.1.3 Analysed isotope

ID and name: B4.3 chemistry_icp_isotope

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The isotope used for quantification of a chemical element.

Allowed values and other constraints: controlled vocabulary, only available if a mass spectrometric-method is recorded in [B4.1 Analytical method](#).

1.1.4 Value

ID and name: B4.4 chemistry_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: The concentration of the analysed chemical compound.

Allowed values and other constraints: decimal number

Example: 15.3

1.1.5 Unit

ID and name: B4.5 chemistry_unit

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: The unit in which the concentration of the analysed chemical compound is given.

Allowed values and other constraints: controlled vocabulary

1.1.6 Uncertainty type

ID and name: B4.6 chemistry_uncertainty_type

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The type of analytical uncertainty.

Allowed values and other constraints: controlled vocabulary

1.1.7 Confidence level

ID and name: B4.7 chemistry_uncertainty_sigma

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: Sigma value of the reported absolute analytical uncertainty.

Allowed values and other constraints: 1, 2, 3

Example: 2

1.1.8 Uncertainty value

ID and name: B4.8 chemistry_uncertainty_value

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: Value of the absolute analytical uncertainty.

Allowed values and other constraints: decimal number

Example: 0.3

1.2 Major elements

ID and name: OM1.2 material_metal_chemistry_major

Provided by: TerraLID system

Obligation: mandatory

Occurrences: 1–n

Definition: Major chemical elements (>1 wt%) in the metal, inferred from the chemical composition.

Allowed values and other constraints: controlled vocabulary

2. Metal corrosion

ID and name: OM2 material_metal_corrosion

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Information about the corrosion of the metal.

with the two subproperties:

2.1 Extent

ID and name: OM2.1 material_metal_corrosion_extent

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The extent of corrosion affecting the metal.

Allowed values and other constraints: controlled vocabulary

2.2 Details

ID and name: OM2.2 material_metal_corrosion_reason

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Indicators and observations for corrosion.

Allowed values and other constraints: free text

Example: thick green crust with sediment

3. Provenance indicators

ID and name: OM3 material_metal_provenance

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Information about provenance if known from other sources (e.g. stamps).

Allowed values and other constraints: free text

Example: Moulded inscription: Imp(eratoris) Caes(aris) Hadriani Aug(usti) met(alli) Lut(udarensis)