

Analyses

TerraLID ID

ID and name: A0 terralid_analysis_id

Provided by: TerraLID system

Obligation: mandatory

Occurrences: 1

Definition: The ID of the analysis in the TerraLID database.

Allowed values and other constraints: t.b.d.

Example: t.b.d.

1. Laboratory ID

ID and name: A1 analysis_lab_id

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The ID(s) of the analysis in a laboratory and/or another database.

Allowed values and other constraints: free text

Example: 2024-TR01

2. Analysis type

ID and name: A2 analysis_lia_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of analysis for measuring the lead isotope composition.

Allowed values and other constraints: controlled vocabulary

3. Preparation protocol

ID and name: A3 analysis_lia_preparation

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Information about how the sample was prepared for analysis.

with the two subproperties:

3.1 Description

ID and name: A3.1 analysis_lia_preparation_description

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The way the sample was prepared for analysis.

Allowed values and other constraints: free text

Example: Dissolution with aqua regia at 80°C and evaporation to dryness, followed by dissolution in 2% HNO₃.

3.2 Publication

ID and name: A3.2 analysis_lia_preparation_publication

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: If the preparation protocol was already published, the publication of the protocol.

with the five subproperties:

3.2.1 Persistent Identifier

ID and name: B5.1 relation_pid

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The persistent identifier or TerraLID ID associated with a resource or related research output. If referring to another entity in the TerraLID database, the TerraLID identifier must be used.

with the two subproperties:

3.2.1.1 VALUE

ID and name: B5.1.1 relation_pid_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of the persistent identifier or TerraLID ID.

Allowed values and other constraints: valid persistent identifier according to the options listed in B5.1.2 Type .

Example: 10.60510/ICDP5054ESYI201

3.2.1.2 TYPE

ID and name: B5.1.2 relation_pid_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of the identifier.

Allowed values and other constraints: controlled vocabulary

3.2.2 Full reference

ID and name: B5.2 relation_text

Provided by: data provider, API (DOI)

Obligation: recommended

Occurrences: 0–1

Definition: The full reference of a publication.

Allowed values and other constraints: free text

Example: Palinkaš, L. A., 1985, Lead isotope patterns in galenas from some selected ore deposits in Croatia and NW Bosnia, Geološki Vjesnik, 38, 175–89.

3.2.3 Kind of relation

ID and name: B5.3 relation_kind

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Relationship between item and the research output.

Allowed values and other constraints: controlled vocabulary

3.2.4 Type of resource

ID and name: B5.4 relation_resource

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Type of resource or research output.

Allowed values and other constraints: controlled vocabulary

3.2.5 Additional details

ID and name: B5.5 relation_detail

Provided by: data provider

Obligation: optional

Occurrences: 0–n

Definition: Additional information about the relation, e.g., if the related work addresses a specific aspect of the item (e.g., the geological setting).

Allowed values and other constraints: free text

Example: Information about the dating of the site.

4. Analysed material

ID and name: A4 analysis_lia_material

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Capture here if specific materials within a sample are analysed, such as mineral separates or laser ablation of individual mineral species within the same specimen.

Allowed values and other constraints: free text

Example: only malachite analysed

5. Separation protocol

ID and name: A5 analysis_lia_separation

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Information about the protocol used for the separation of lead from the sample matrix.

with the two subproperties:

5.1 Description

ID and name: A5.1 analysis_lia_separation_description

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: If unpublished, provide description of the protocol used for the separation of lead from the sample matrix. Otherwise, list all deviations from the published protocol.

Allowed values and other constraints: free text

Example: t.b.d.

5.2 Publication

ID and name: A5.2 analysis_lia_separation_publication

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The publication of the protocol used for separating lead from the sample matrix.

with the five subproperties:

5.2.1 Persistent Identifier

ID and name: B5.1 relation_pid

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The persistent identifier or TerraLID ID associated with a resource or related research output. If referring to another entity in the TerraLID database, the TerraLID identifier must be used.

with the two subproperties:

5.2.1.1 VALUE

ID and name: B5.1.1 relation_pid_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of the persistent identifier or TerraLID ID.

Allowed values and other constraints: valid persistent identifier according to the options listed in B5.1.2 Type .

Example: 10.60510/ICDP5054ESYI201

5.2.1.2 TYPE

ID and name: B5.1.2 relation_pid_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of the identifier.

Allowed values and other constraints: controlled vocabulary

5.2.2 Full reference

ID and name: B5.2 relation_text

Provided by: data provider, API (DOI)

Obligation: recommended

Occurrences: 0–1

Definition: The full reference of a publication.

Allowed values and other constraints: free text

Example: Palinkaš, L. A., 1985, Lead isotope patterns in galenas from some selected ore deposits in Croatia and NW Bosnia, Geološki Vjesnik, 38, 175–89.

5.2.3 Kind of relation

ID and name: B5.3 relation_kind

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Relationship between item and the research output.

Allowed values and other constraints: controlled vocabulary

5.2.4 Type of resource

ID and name: B5.4 relation_resource

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Type of resource or research output.

Allowed values and other constraints: controlled vocabulary

5.2.5 Additional details

ID and name: B5.5 relation_detail

Provided by: data provider

Obligation: optional

Occurrences: 0–n

Definition: Additional information about the relation, e.g., if the related work addresses a specific aspect of the item (e.g., the geological setting).

Allowed values and other constraints: free text

Example: Information about the dating of the site.

6. Measurement device

ID and name: A6 analysis_lia_instrument

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Information about the instrument used to measure the lead isotope composition.

with the three subproperties:

6.1 Instrument type

ID and name: A6.1 analysis_lia_instrument_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of instrument.

Allowed values and other constraints: controlled vocabulary

6.2 Instrument model

ID and name: A6.2 analysis_lia_instrument_model

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The manufacturer and model name of the instrument.

Allowed values and other constraints: controlled vocabulary

6.3 Persistent identifier (PIDinst)

ID and name: A6.3 analysis_lia_instrument_pid

Provided by: data provider

Obligation: optional

Occurrences: 0–1

Definition: The full URL of the instrument's [PIDinst](#).

Allowed values and other constraints: is valid PIDinst

Example: <http://hdl.handle.net/21.11157/cd5777a9-07c4-4e80-a770-9f294f09894d>

7. Analyte Pb concentration

ID and name: A7 analysis_lia_pb_concentration

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The lead concentration of the analyte.

with the eight subproperties:

7.1 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

7.2 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 .

7.3 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 .

7.4 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

7.5 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

7.6 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

7.7 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

7.8 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

8. Mean total intensity of analyte

ID and name: A8 analysis lia_pb_intensity

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The mean total intensity (sum of all isotope signals) during the analysis.

with the two subproperties:

8.1 Value

ID and name: A8.1 analysis_liq_pb_intensity_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The value of the mean total intensity.

Allowed values and other constraints: decimal number

Example: 40.5

8.2 Unit

ID and name: A8.2 analysis_liq_pb_intensity_unit

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The SI unit in which the mean total intensity is given.

Allowed values and other constraints: controlled vocabulary

9. Reference materials

ID and name: A9 analysis_liq_standard-pb

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Information about the reference material(s) for lead isotopes used during the analysis for quality control and/or correction of instrumental fractionation.

with the six subproperties:

9.1 Name of lead isotope reference material

ID and name: A9.1 analysis_liq_standard-pb_name

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: The name of the reference material for lead isotopes.

Allowed values and other constraints: controlled vocabulary

9.2 Publication of lead isotope reference material

ID and name: A9.2 analysis_lia_standard-pb_publication

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: Publication reporting the values of the reference material's lead isotope ratios used for mass bias correction. These are not necessarily the values originally published for the reference material.

with the five subproperties:

9.2.1 Persistent Identifier

ID and name: B5.1 relation_pid

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The persistent identifier or TerraLID ID associated with a resource or related research output. If referring to another entity in the TerraLID database, the TerraLID identifier must be used.

with the two subproperties:

9.2.1.1 VALUE

ID and name: B5.1.1 relation_pid_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of the persistent identifier or TerraLID ID.

Allowed values and other constraints: valid persistent identifier according to the options listed in B5.1.2 Type .

Example: 10.60510/ICDP5054ESYI201

9.2.1.2 TYPE

ID and name: B5.1.2 relation_pid_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of the identifier.

Allowed values and other constraints: controlled vocabulary

9.2.2 Full reference

ID and name: B5.2 relation_text

Provided by: data provider, API (DOI)

Obligation: recommended

Occurrences: 0–1

Definition: The full reference of a publication.

Allowed values and other constraints: free text

Example: Palinkaš, L. A., 1985, Lead isotope patterns in galenas from some selected ore deposits in Croatia and NW Bosnia, Geološki Vjesnik, 38, 175–89.

9.2.3 Kind of relation

ID and name: B5.3 relation_kind

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Relationship between item and the research output.

Allowed values and other constraints: controlled vocabulary

9.2.4 Type of resource

ID and name: B5.4 relation_resource

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Type of resource or research output.

Allowed values and other constraints: controlled vocabulary

9.2.5 Additional details

ID and name: B5.5 relation_detail

Provided by: data provider

Obligation: optional

Occurrences: 0–n

Definition: Additional information about the relation, e.g., if the related work addresses a specific aspect of the item (e.g., the geological setting).

Allowed values and other constraints: free text

Example: Information about the dating of the site.

9.3 Measured values of lead isotope reference material

ID and name: A9.3 analysis_lia_standard-pb_measured

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The measured lead isotope ratios of the reference material.

with the seven subproperties:

9.3.1 Name

ID and name: B6.1 lia_ratio_name

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The lead isotope ratio for which the value is reported.

Allowed values and other constraints: 206Pb/204Pb, 207Pb/204Pb, 208Pb/204Pb, 204Pb/206Pb, 207Pb/206Pb,

208Pb/206Pb, 207Pb/208Pb, 206Pb/208Pb

Example: 206Pb/204Pb

9.3.2 Value

ID and name: B6.2 lia_ratio_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of the lead isotope ratio.

Allowed values and other constraints: decimal number

Example: 18.59123

9.3.3 Uncertainty

ID and name: B6.3 lia_ratio_uncertainty_type

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Type of analytical uncertainty for the lead isotope ratio.

Allowed values and other constraints: controlled vocabulary

9.3.4 Confidence level

ID and name: B6.4 lia_ratio_uncertainty_sigma

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Sigma value of the reported absolute analytical uncertainty.

Allowed values and other constraints: 1, 2, 3

Example: 2

9.3.5 Absolute uncertainty

ID and name: B6.5 lia_ratio_uncertainty_value_absolute

Provided by: data provider, TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Value of the reported absolute analytical uncertainty.

Allowed values and other constraints: decimal number

Example: 0.00008

9.3.6 Relative uncertainty

ID and name: B6.6 lia_ratio_uncertainty_value_relative

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Value of relative analytical uncertainty for the lead isotope ratio in per cent (%). If provided, the TerraLID

system will calculate the corresponding absolute values.

Allowed values and other constraints: decimal number

Example: 0.1

9.3.7 Source

ID and name: B6.7 lia_ratio_source

Provided by: TerraLID system

Obligation: mandatory

Occurrences: 1

Definition: Whether the date was reported in the publication or calculated by the TerraLID system from other published values.

Allowed values and other constraints: original, calculated

Example: original

9.4 Name of thallium isotope reference material

ID and name: A9.4 analysis_lia_standard-tl_name

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The name of the thallium reference material used during the analysis for quality control and/or correction of instrumental fractionation.

Allowed values and other constraints: controlled vocabulary

9.5 Measured $^{205}\text{TI}/^{203}\text{TI}$ ratio of thallium isotope reference material

ID and name: A9.5 analysis_lia_standard-tl_measured

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The measured $^{205}\text{TI}/^{203}\text{TI}$ ratio of the reference material.

Allowed values and other constraints: decimal number

Example: 2.38714

9.6 Concentration of the thallium isotope reference material

ID and name: A9.6 analysis_lia_standard-tl_concentration

Provided by: data provider

Obligation: optional

Occurrences: 0–1

Definition: The concentration of the thallium reference material added to the sample in ppb (e.g. ng/g, $\mu\text{g/l}$).

Allowed values and other constraints: number

Example: 100

10. Mass bias correction model

ID and name: A10 analysis_liu_correction

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The model(s) used for mass bias correction of the lead isotope data.

Allowed values and other constraints: controlled vocabulary

11. Laboratory

ID and name: A11 analysis_liu_laboratory

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The laboratory that performed the lead isotope analysis.

with the nine subproperties:

11.1 Role

ID and name: B1.1 person_role

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: The role in which the person is related to the linked information.

Allowed values and other constraints: controlled vocabulary

Example: Author

11.2 First names

ID and name: B1.2 person_name_first

Provided by: data provider, API (ORCID ID)

Obligation: recommended

Occurrences: 0–1

Definition: The first and middle name(s) of the person.

Allowed values and other constraints: free text

Example: Jane

11.3 Last Name

ID and name: B1.3 person_name_last

Provided by: data provider, API (ORCID ID)

Obligation: mandatory

Occurrences: 1

Definition: The last name of the person.

Allowed values and other constraints: free text

Example: Doe

11.4 Persistent Identifier

ID and name: B1.4 person_pid

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: Persistent identifier(s) assigned to the person.

with the two subproperties:

11.4.1 VALUE OF PERSISTENT IDENTIFIER

ID and name: B1.4.1 person_pid_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: A persistent identifier assigned to the analysed material.

Allowed values and other constraints: Valid persistent identifier according to B1.4.2 Type of persistent identifier

Example: 0000–0001–2345–678X

11.4.2 TYPE OF PERSISTENT IDENTIFIER

ID and name: B1.4.2 person_pid_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of the persistent identifier.

Allowed values and other constraints: controlled vocabulary

11.5 Affiliation name

ID and name: B1.5 person_affiliation_name

Provided by: data provider, API (ORCID ID, ROR ID)

Obligation: mandatory

Occurrences: 1–n

Definition: The name of the person's affiliation.

Allowed values and other constraints: free text

Example: Institute of Time Travels

11.6 ROR ID

ID and name: B1.6 person_affiliation_ror

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The [ROR](#) of the person's affiliation.

Allowed values and other constraints: is valid ROR ID

Example: 09af7gtg53

11.7 Address

ID and name: B1.7 person_affiliation_address

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The address of the person's affiliation.

Allowed values and other constraints: free text

Example: Teleporter Avenue 123, Ankh–Morpok, United States of Humanities

11.8 Mail address

ID and name: B1.8 person_mail

Provided by: data provider, API (ORCID ID)

Obligation: recommended

Occurrences: 0–n

Definition: The mail address of the person.

Allowed values and other constraints: is valid mail address

Example: jane.doe@timetravels.int

11.9 Website

ID and name: B1.9 person_url

Provided by: data provider, API (ORCID ID)

Obligation: optional

Occurrences: 0–1

Definition: The URL of a person.

Allowed values and other constraints: is valid URL

Example: <https://www.timetravels.int/members/jane-doe>

12. Date of analysis

ID and name: A12 analysis_lia_date

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: The day of the analysis.

Allowed values and other constraints: date formatted as YYYY-MM-DD

Example: 2024-02-24

13. Description

ID and name: A13 analysis_lia_description

Provided by: data provider

Obligation: optional

Occurrences: 0–1

Definition: Additional information about the analytical procedure not captured elsewhere.

Allowed values and other constraints: free text

Example: t.b.d.

14. Lead isotope ratios

ID and name: A14 analysis_lia_ratio

Provided by: data provider, TerraLID system

Obligation: mandatory

Occurrences: 1–n

Definition: Mass-bias corrected lead isotope ratios and analytical uncertainty. The TerraLID system will calculate all ratios not reported in the original publication.

with the seven subproperties:

14.1 Name

ID and name: B6.1 lia_ratio_name

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The lead isotope ratio for which the value is reported.

Allowed values and other constraints: 206Pb/204Pb, 207Pb/204Pb, 208Pb/204Pb, 204Pb/206Pb, 207Pb/206Pb, 208Pb/206Pb, 207Pb/208Pb, 206Pb/208Pb

Example: 206Pb/204Pb

14.2 Value

ID and name: B6.2 lia_ratio_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of the lead isotope ratio.

Allowed values and other constraints: decimal number

Example: 18.59123

14.3 Uncertainty

ID and name: B6.3 lia_ratio_uncertainty_type

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Type of analytical uncertainty for the lead isotope ratio.

Allowed values and other constraints: controlled vocabulary

14.4 Confidence level

ID and name: B6.4 lia_ratio_uncertainty_sigma

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Sigma value of the reported absolute analytical uncertainty.

Allowed values and other constraints: 1, 2, 3

Example: 2

14.5 Absolute uncertainty

ID and name: B6.5 lia_ratio_uncertainty_value_absolute

Provided by: data provider, TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Value of the reported absolute analytical uncertainty.

Allowed values and other constraints: decimal number

Example: 0.00008

14.6 Relative uncertainty

ID and name: B6.6 lia_ratio_uncertainty_value_relative

Provided by: data provider

Obligation: recommended

Occurrences: 0–1

Definition: Value of relative analytical uncertainty for the lead isotope ratio in per cent (%). If provided, the TerraLID system will calculate the corresponding absolute values.

Allowed values and other constraints: decimal number

Example: 0.1

14.7 Source

ID and name: B6.7 lia_ratio_source

Provided by: TerraLID system

Obligation: mandatory

Occurrences: 1

Definition: Whether the date was reported in the publication or calculated by the TerraLID system from other published values.

Allowed values and other constraints: original, calculated

Example: original

15. Age model parameters

ID and name: A15 analysis_lia_age_model

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–n

Definition: Age model parameters calculated from the mass-bias corrected lead isotope ratios.

with the nine subproperties:

15.1 Age model name

ID and name: A15.1 analysis_lia_age_model_name

Provided by: TerraLID system

Obligation: mandatory

Occurrences: 1

Definition: The age model used for calculating the parameters

Allowed values and other constraints: SK75, CR75, AJ84, representing the age models defined by [Stacey & Kramers \(1975\)](#), [Cumming & Richards \(1975\)](#), and [Albarède & Juteau \(1984\)](#), respectively.

Example: SK75

15.2 Model age

ID and name: A15.2 analysis_lia_age_model_Tmod

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Value of the model age in million years (Ma).

Allowed values and other constraints: decimal number

Example: 250.54

15.3 Uncertainty of model age

ID and name: A15.3 analysis_lia_age_model_Tmod_uncertainty

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Uncertainty of the model age.

Allowed values and other constraints: decimal number

Example: t.b.d.

15.4 Mu

ID and name: A15.4 analysis_lia_age_model_mu

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Value of mu (μ).

Allowed values and other constraints: decimal number

Example: 9.86

15.5 Uncertainty of mu

ID and name: A15.5 analysis_lia_age_model_mu_uncertainty

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Uncertainty of mu.

Allowed values and other constraints: decimal number

Example: t.b.d.

15.6 Kappa

ID and name: A15.6 analysis_lia_age_model_kappa

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Value of kappa (κ).

Allowed values and other constraints: decimal number

Example: 3.92

15.7 Uncertainty of kappa

ID and name: A15.7 analysis_lia_age_model_kappa_uncertainty

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Uncertainty of kappa.

Allowed values and other constraints: decimal number

Example: t.b.d.

15.8 Omega

ID and name: A15.8 analysis_lia_age_model_omega

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Value of omega (ω).

Allowed values and other constraints: decimal number

Example: t.b.d.

15.9 Uncertainty of omega

ID and name: A15.9 analysis_lia_age_model_omega_uncertainty

Provided by: TerraLID system

Obligation: recommended

Occurrences: 0–1

Definition: Uncertainty of omega.

Allowed values and other constraints: decimal number

Example: t.b.d.

16. Relations

ID and name: A16 analysis_lia_relation

Provided by: data provider

Obligation: recommended

Occurrences: –n

Definition: Information about related entities and other research output such as publications providing relevant information about the analysis. This includes any literature from which information about the analysis was extracted.

with the five subproperties:

16.1 Persistent Identifier

ID and name: B5.1 relation_pid

Provided by: data provider

Obligation: recommended

Occurrences: 0–n

Definition: The persistent identifier or TerraLID ID associated with a resource or related research output. If referring to another entity in the TerraLID database, the TerraLID identifier must be used.

with the two subproperties:

16.1.1 VALUE

ID and name: B5.1.1 relation_pid_value

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: Value of the persistent identifier or TerraLID ID.

Allowed values and other constraints: valid persistent identifier according to the options listed in [B5.1.2 Type](#).

Example: 10.60510/ICDP5054ESYI201

16.1.2 TYPE

ID and name: B5.1.2 relation_pid_type

Provided by: data provider

Obligation: mandatory

Occurrences: 1

Definition: The type of the identifier.

Allowed values and other constraints: controlled vocabulary

16.2 Full reference

ID and name: B5.2 relation_text

Provided by: data provider, API (DOI)

Obligation: recommended

Occurrences: 0–1

Definition: The full reference of a publication.

Allowed values and other constraints: free text

Example: Palinkaš, L. A., 1985, Lead isotope patterns in galenas from some selected ore deposits in Croatia and NW Bosnia, Geološki Vjesnik, 38, 175–89.

16.3 Kind of relation

ID and name: B5.3 relation_kind

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Relationship between item and the research output.

Allowed values and other constraints: controlled vocabulary

16.4 Type of resource

ID and name: B5.4 relation_resource

Provided by: data provider

Obligation: mandatory

Occurrences: 1–n

Definition: Type of resource or research output.

Allowed values and other constraints: controlled vocabulary

16.5 Additional details

ID and name: B5.5 relation_detail

Provided by: data provider

Obligation: optional

Occurrences: 0–n

Definition: Additional information about the relation, e.g., if the related work addresses a specific aspect of the item (e.g., the geological setting).

Allowed values and other constraints: free text

Example: Information about the dating of the site.