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Supplement of

TephAta – an online collection of tephra data from the Atacama Desert

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Supplementary Material

The input masks to document tephra related data in seven different categories (Site, Sample, Physical Properties, Geochemistry, Chronology, Chronostratigraphy, Tephra Correlation Group) within the TephAta database are displayed below in Fig. S1-S8. A list of all input fields and their brief description is given in Table S1. A list of all dropdown options is given in Table S2.

Fig. S1: Input Mask "Site"

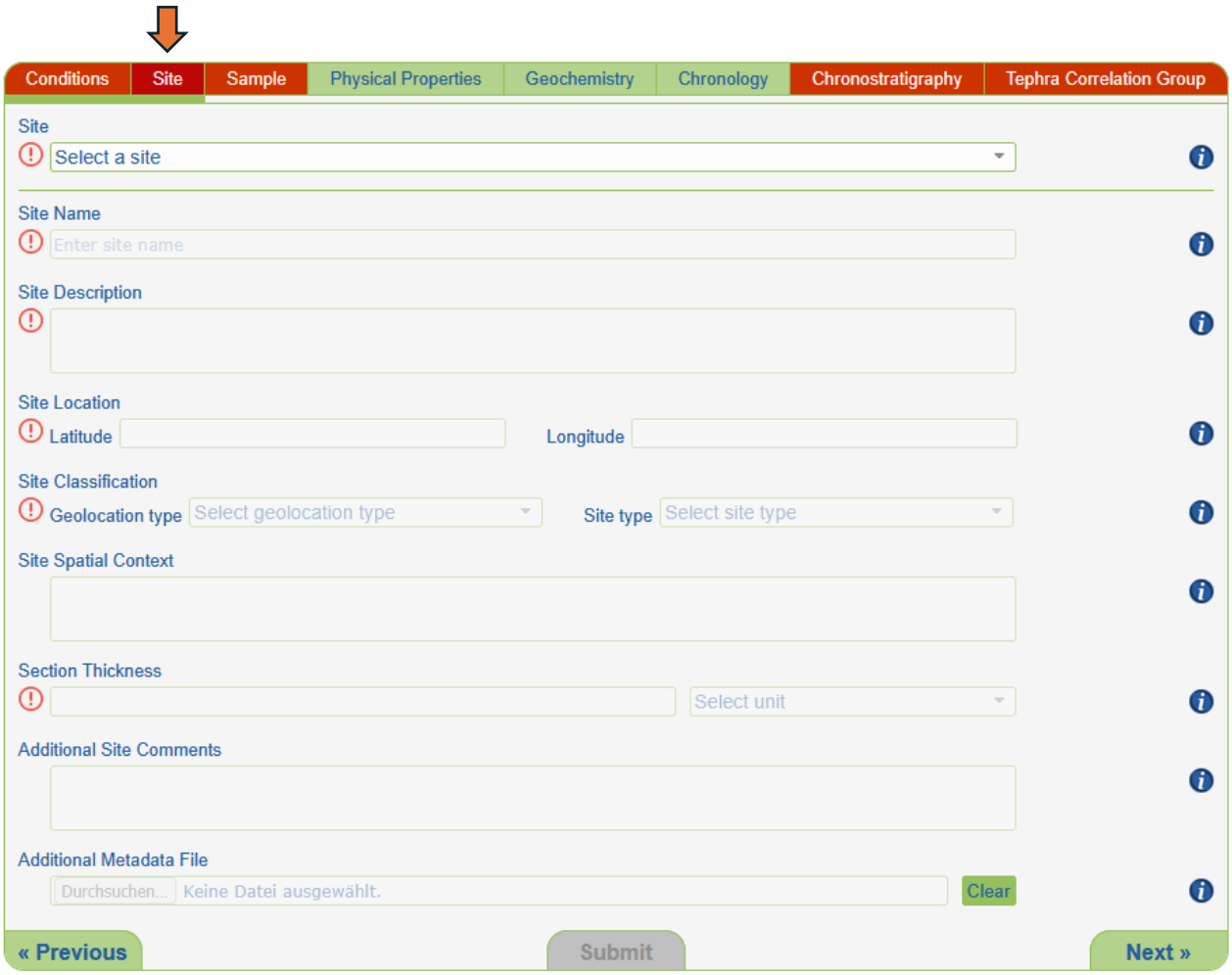

Fig. S2: Input Mask “Sample”

Fig. S3: Input Mask "Sample" *continued*

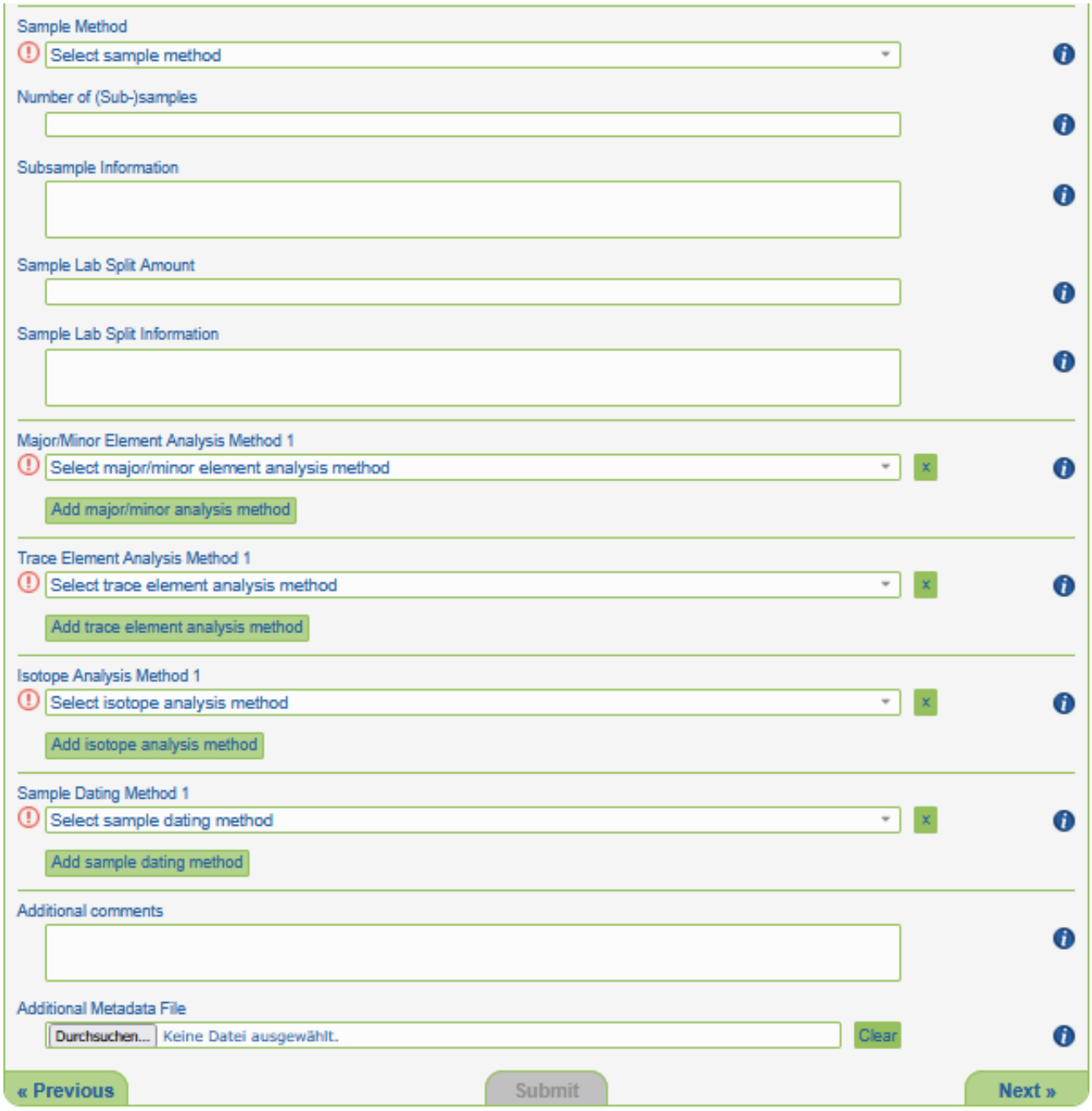

Fig. S4: Input Mask “Physical Properties”

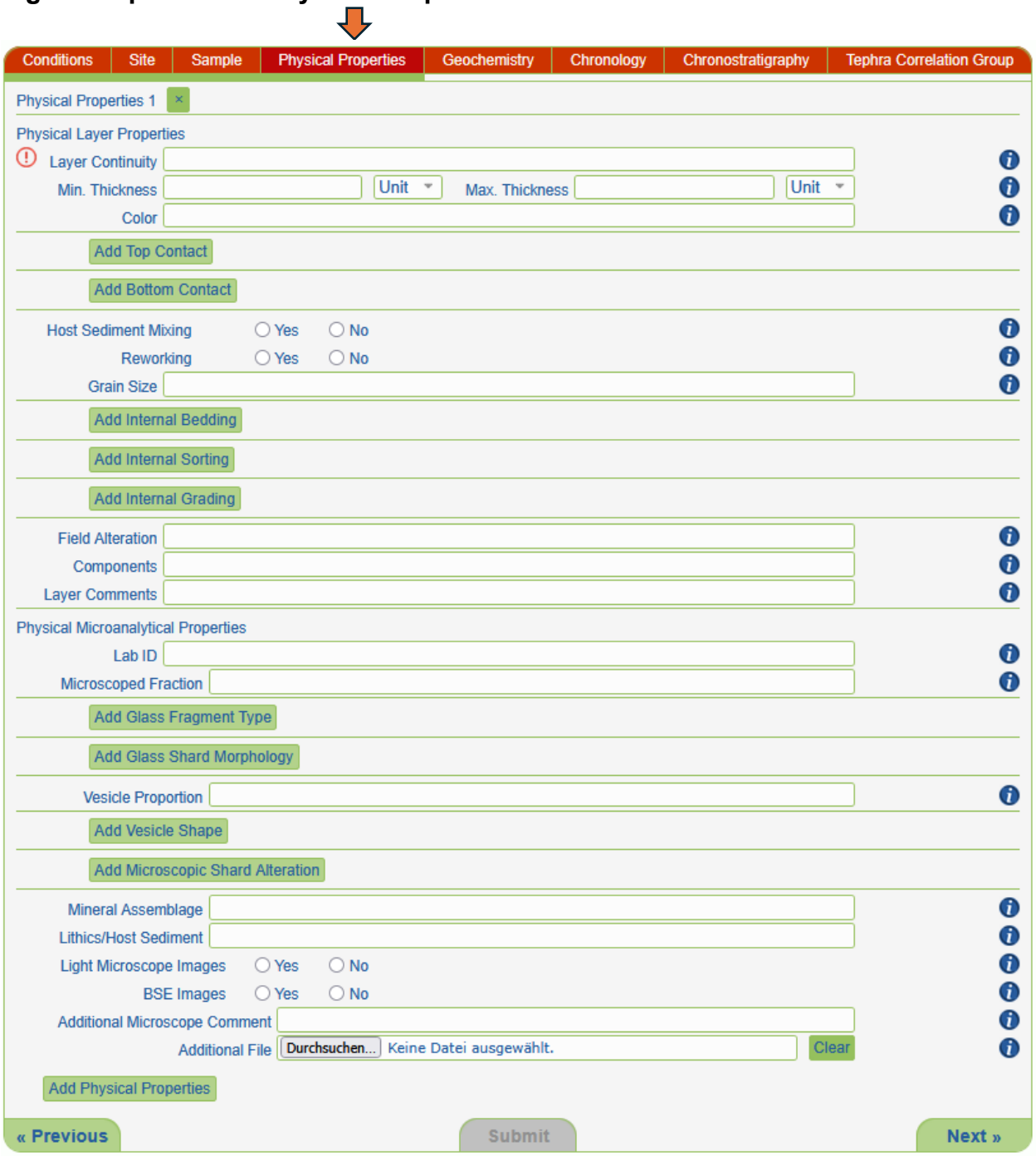

Fig. S5: Input Mask “Geochemistry”

Fig. S6: Input Mask "Chronology"

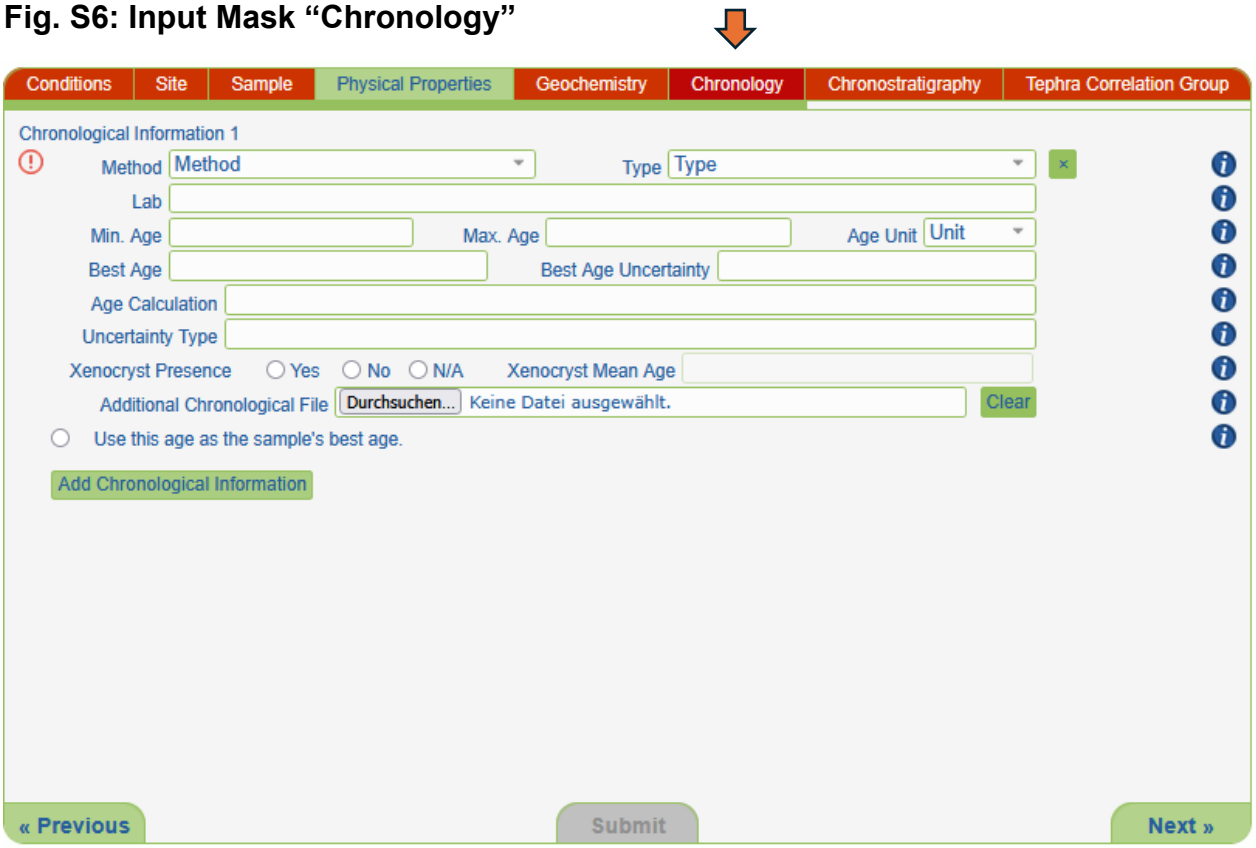

Fig. S7: Input Mask "Chronostratigraphy"

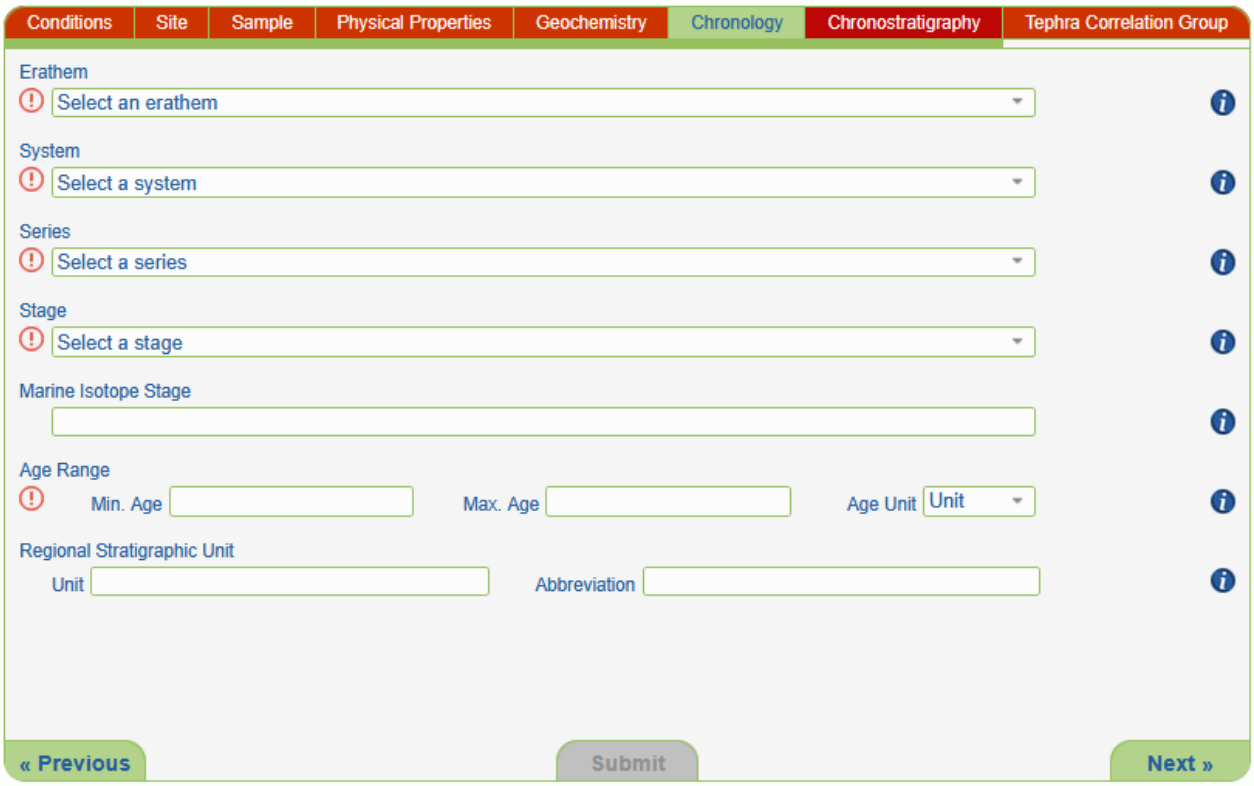

Fig. S8: Input Mask “Tephra Correlation Group”

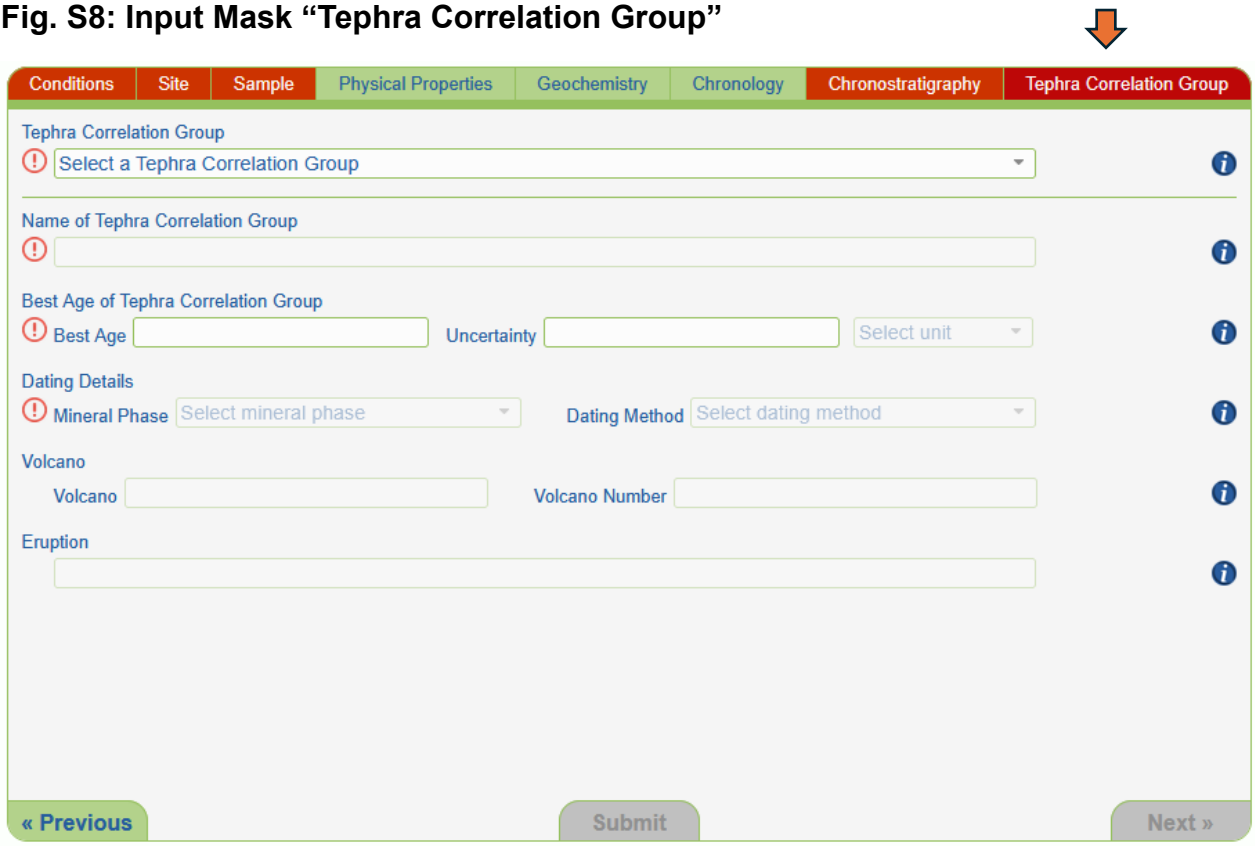

Table S1

The following table contains all input fields within the TephAta database, organized by their respective categories. For each field, the field name is provided along with its field type, which specifies how the data is entered (e.g., via a dropdown selection or text input). Additionally, a brief description explains the type of information to be entered for each field.

Category	Input Field	Field Type	Description
Site	Site	dropdown selection	selection of an existing sample location or creation of a new location
Site	Site Name	text	name of sampling site
Site	Site Description	text	general description of site
Site	Site Location Latitude	number	latitude position of site in decimal degree and WGS84 datum
Site	Site Location Longitude	number	longitudinal position of site in decimal degree and WGS84 datum
Site	Geolocation Type	dropdown selection	type of physical feature the sample was collected from e.g., alluvial fan or roadcut
Site	Site Type	dropdown selection	type of sample site, e.g. natural or artificial outcrop
Site	Site Spatial Context	text	description of spatial context of site e.g. slope and its angle, flat source, etc.
Site	Section Thickness	number	thickness of site e.g. thickness of outcrop or core
Site	Section Thickness unit	dropdown selection	unit of the section thickness
Site	Additional comments	short text	additional comments for site description, e.g. site equivalent to site in reference
Site	Additional Metadata File	zip-file upload	upload function for additional files, e.g. sketch of the outcrop, images

Category	Input Field	Field Type	Description
Sample	Sample Name	text	name of sample
Sample	Lab ID(s)	text	sample identifier(s) used in lab
Sample	Alternative identifier(s)	text	alternative existing identifier related to the sample, such as DOI, IGSN etc.
Sample	Alternative identifier type	dropdown selection	type of additional identifier (DOI, URL, IGSN, etc.)
Sample	Related Resource Relation	dropdown selection	How is your sample related to the other resource? (e.g. is cited by, is part of, is variant form of, etc.)
Sample	Related Resource Type	dropdown selection	What is the type of the related resource? (e.g. data paper, dataset, image, etc.)
Sample	Related Resource	text	name of related resource
Sample	Related Resource identifier type	dropdown selection	type of Related Resource type identifier (DOI, URL, IGSN)
Sample	Creator	text, learning dropdown list	name of sample creator
Sample	Contributor	text, learning dropdown list	name of contributor
Sample	Contributor Role	dropdown selection	role of contributor, e.g. researcher
Sample	Sample Resource Type	dropdown selection	type of sample
Sample	Sample Recovery Technique	dropdown selection	technique applied to recover the sample (e.g. coring)
Sample	Sample Collection Time	dropdown calendar	date the sample was taken
Sample	Sample Collection Time	text	time the sample was taken
Sample	Sample Access	dropdown selection	accessibility of sample material
Sample	Data Access	dropdown selection	accessibility of sample related data
Sample	Sample Section Depth Top	number	top depth of sample within the sampled section
Sample	Sample Section Depth Bottom	number	bottom depth of sample within the sampled section
Sample	Sample Section Depth Unit	dropdown selection	unit of section depth
Sample	Sample Core ID	text	name or ID of the core section
Sample	Sample Composite Depth Top	number	top depth of sample within the sampled core section
Sample	Sample Composite Depth Bottom	number	bottom depth of sample within the sampled core section
Sample	Sample Composite Depth Unit	dropdown selection	unit of core section depth

Category	Input Field	Field Type	Description
Sample	Volcanic Origin Volcano	text, learning dropdown list	name of the source volcano
Sample	Volcanic Origin Volcano Number	text, learning dropdown list	unique identifier documented in the Volcanoes of the World database
Sample	Volcanic Origin Eruption	text, learning dropdown list	name of the source eruption
Sample	Sample Depositional Process	dropdown selection	depositional process of sample within section
Sample	Sample Material(s)	dropdown selection	type of material sampled, multiple entries possible
Sample	Sample Method	dropdown selection	position of the sample from within a stratigraphic layer
Sample	Number of (Sub-)samples	number	number of samples taken in the field
Sample	Subsample Information	text	additional information about subsamples taken, e.g. from which interval the sample was taken
Sample	Sample Lab Split Amount	text	number of lab splits made from the original sample material
Sample	Sample Lab Split Information	text	description of splits made in the lab, e.g. processing
Sample	Major/Minor Element Analysis Method(s)	dropdown selection	methods and material used for major and minor element analyses
Sample	Trace Element Analysis Method(s)	dropdown selection	methods and material used for trace element analyses
Sample	Isotope Analysis Method(s)	dropdown selection	methods and material used for isotope analyses
Sample	Sample Dating Method(s)	dropdown selection	methods and material used for dating
Sample	Additional comments	text	field for additional information describing the sample
Sample	Additional Metadata File	zip file upload	upload function for additional files describing the sample (e.g. photos, field notes).

Category	Input Field	Field Type	Description
Physical Properties	Layer Continuity	text	physical continuity of the stratigraphic layer
Physical Properties	Minimum Thickness	number	minimum thickness of stratigraphic layer
Physical Properties	Maximum Thickness	number	maximum thickness of stratigraphic layer
Physical Properties	Thickness Unit	dropdown selection	unit of thickness of stratigraphic layer
Physical Properties	Color	text	color of stratigraphic layer
Physical Properties	Top Contact	text, learning dropdown list	type of top contact of stratigraphic layer with host sediment
Physical Properties	Bottom Contact	text, learning dropdown list	type of bottom contact of stratigraphic layer with host sediment
Physical Properties	Host Sediment Mixing	selection yes/no	mixing of stratigraphic layer with host sediment
Physical Properties	Reworking	selection yes/no	evidence of reworking for stratigraphic layer
Physical Properties	Grain Size	text	grain size description of the stratigraphic layer
Physical Properties	Internal Bedding	text, learning dropdown list	description of internal bedding
Physical Properties	Internal Sorting	text, learning dropdown list	description of internal sorting
Physical Properties	Internal Grading	text, learning dropdown list	description of internal grading
Physical Properties	Field Alteration	text	description of alterations observed in the field
Physical Properties	Components	text	description of components of the stratigraphic layer
Physical Properties	Layer Comments	text	additional observations made for the stratigraphic layer
Physical Properties	Lab ID	text	lab ID of sample used for microscopic inspection
Physical Properties	Microscoped Fraction	text	fraction inspected under the microscope
Physical Properties	Glass Fragment Type	text, learning dropdown list	type of glass fragments observed during microscopic inspection
Physical Properties	Glass Shard Morphology	text, learning dropdown list	morphology of glass fragments observed during microscopic inspection
Physical Properties	Vesicle Proportion	text	amount of vesicles observed within the glass fragments during microscopic inspection
Physical Properties	Vesicle Shape	text, learning dropdown list	shape of vesicles observed within glass fragments during microscopic inspection
Physical Properties	Microscopic Shard Alteration	text, learning dropdown list	description of glass fragment alteration
Physical Properties	Mineral Assemblage	text	description of mineral assemblage observed during microscopic inspection
Physical Properties	Lithics/Host Sediment	text	description of lithics or host rock observed during microscopic inspection
Physical Properties	Light Microscope Images	selection yes/no	light microscope images available
Physical Properties	BSE images	selection yes/no	backscattered electron images available
Physical Properties	Additional Microscope Comments	text	additional observations made for the stratigraphic layer during microscope inspection
Physical Properties	Additional File	zip file upload	upload function for additional files for morphological description, e.g. microscope images

Category	Input Field	Field Type	Description
Geochemistry	TAS classification(s)	dropdown selection	total alkali vs. silica (TAS) classification of the sample
Geochemistry	WDS-EDS Template File	template upload	upload function for specific template containing major and minor element compositions
Geochemistry	Raw WDS-EDS File	zip file upload	upload function for raw unprocessed major and minor element data
Geochemistry	LA-ICP-MS Template File	template upload	upload function for specific template containing trace element compositions
Geochemistry	Raw LA-ICP-MS File	zip file upload	upload function for raw unprocessed trace element data
Geochemistry	87Sr/86Sr Analysis Lab ID	text	lab ID of Sr isotope sample
Geochemistry	87Sr/86Sr Analysis Method	dropdown selection	methods and material used for Sr-isotope analyses
Geochemistry	87Sr/86Sr Lab	text	name of institute/lab analyses performed
Geochemistry	87Sr/86Sr Ratio	number	Ratio of 87Sr/86Sr
Geochemistry	87Sr/86Sr Error	number	2 sigma uncertainty of 87Sr/86Sr
Geochemistry	87Sr/86Sr Initial ratio	number	Initial 87Sr/86Sr ratio
Geochemistry	143Nd/144Nd Analysis Lab ID	text	Lab ID of Nd isotope sample
Geochemistry	143Nd/144Nd Analysis Method	dropdown selection	methods and material used for Nd-isotope analyses
Geochemistry	143Nd/144Nd Lab	text	name of institute/lab analyses performed
Geochemistry	143Nd/144Nd Ratio	number	Ratio of 143Nd/144Nd
Geochemistry	143Nd/144Nd Error	number	2 sigma uncertainty of 143Nd/144Nd
Geochemistry	143Nd/144Nd Initial ratio	number	Initial 143Nd/144Nd ratio
Geochemistry	176Hf/177Hf Analysis Lab ID	text	Lab ID of Hf isotope-sample
Geochemistry	176Hf/177Hf Analysis Method	dropdown selection	methods and material used for Hf-isotope analyses
Geochemistry	176Hf/177Hf Lab	text	name of institute/lab analyses performed
Geochemistry	176Hf/177Hf Ratio	number	Ratio of 176Hf/177Hf
Geochemistry	176Hf/177Hf Error	number	2 sigma uncertainty of 176Hf/177Hf
Geochemistry	176Hf/177Hf Initial ratio	number	Initial 176Hf/177Hf ratio
Geochemistry	Pb Analysis Lab ID	text	Lab ID of Pb- isotope-sample
Geochemistry	Pb Analysis Method	dropdown selection	methods and material used for Pb-isotope analyses
Geochemistry	Pb Lab	text	name of institute/lab analyses performed
Geochemistry	206Pb/204Pb Ratio	number	Ratio of 206Pb/204Pb
Geochemistry	206Pb/204Pb error	number	2 sigma uncertainty of 206Pb/204Pb
Geochemistry	207Pb/204Pb Ratio	number	Ratio of 207Pb/204Pb
Geochemistry	207Pb/204Pb error	number	2 sigma uncertainty of 207Pb/204Pb
Geochemistry	208Pb/204Pb Ratio	number	Ratio of 208Pb/204Pb
Geochemistry	208Pb/204Pb error	number	2 sigma uncertainty of 208Pb/204Pb
Geochemistry	Supplemental Isotope Analysis File	zip file upload	upload function for additional files of isotope analyses, e.g. raw data

Category	Input Field	Field Type	Description
Chronology	Method	dropdown selection	dating method and mineral phase used
Chronology	Type	dropdown selection	type of age, e.g. single crystal fusing or stepwise heating
Chronology	Lab	text	name of laboratory/institute analyses performed
Chronology	Minimum Age	number	youngest age of the sample obtained by this method
Chronology	Maximum Age	number	oldest age of the sample obtained by this method
Chronology	Unit Ages	dropdown selection	unit of age
Chronology	Best Age	number	final age calculated for the sample by this method
Chronology	Best Age Uncertainty	number	uncertainty calculated for the final age
Chronology	Age Calculation	text	method used to calculate the best age, e.g. weighted mean
Chronology	Uncertainty Type	text	level and type of uncertainty calculation
Chronology	Xenocryst Contamination	selection	xenocrysts content of the sample
Chronology	Xenocryst Mean Age	number	mean age of xenocrysts
Chronology	Additional Chronological File	zip file upload	upload function for additional files related to dating results, e.g. raw data
Chronology	Use this as the sample's best age	selection	option to select the best age, if multiple ages exist for the sample

Category	Input Field	Field Type	Description
Chronostratigraphy	Erathem	dropdown selection	Erathem the sample was deposited
Chronostratigraphy	System	dropdown selection	System the sample was deposited
Chronostratigraphy	Series	dropdown selection	Series the sample was deposited
Chronostratigraphy	Stage	dropdown selection	Stage the sample was deposited
Chronostratigraphy	Marine Isotope Stage	dropdown selection	Marine Isotope Stage the sample was deposited
Chronostratigraphy	Age Range Min. Age	number	minimum age of sample
Chronostratigraphy	Age Range Max. Age	number	maximum age of sample
Chronostratigraphy	Age Range Age Unit	dropdown selection	unit of age range
Chronostratigraphy	Regional Stratigraphic Unit	text	name of regional stratigraphic unit the sample was taken
Chronostratigraphy	Abbreviation	text	abbreviation of the regional stratigraphic unit

Category	Input Field	Field Type	Description
Tephra Correlation Group	Tephra Correlations Group	dropdown selection	selection of an tephra correlation group or creation of a new one
Tephra Correlation Group	Name of Tephra Correlation Group	text	name of tephra correlation group
Tephra Correlation Group	Best Age	number	most reliable age for the group of correlated tephra
Tephra Correlation Group	Uncertainty	number	uncertainty of the most reliable age for the group of correlated tephra
Tephra Correlation Group	Unit Ages	dropdown selection	selection of unit of age and uncertainty
Tephra Correlation Group	Mineral Phase	dropdown selection	mineral phase used for dating of best age
Tephra Correlation Group	Dating Method	dropdown selection	method used for dating of best age
Tephra Correlation Group	Volcano	text	name of the source volcano
Tephra Correlation Group	Volcano Number	number	unique identifier documented in the Volcanoes of the World database
Tephra Correlation Group	Eruption	text	name of the source eruption

Table S2:

The table contains all dropdown options within the TephAta database, organized by their respective categories and input fields.

Category	Input Field	Dropdown Options
Site	Site	growing list of sites registered within TephAta
Site	Geolocation Type	alluvial fan, anticline, aquifer, arch (natural formation), arroyo, badlands, bank (hydrographic), bar (physiographic), basin, bay, beach, bight, canyon, cape, cave cliff, continental divide, continental margin, crater, delta, drainage basin, drumlin, dune, earthquake feature, estuary, fault, fault zone, flat, floodplain, fold (ge zone, gap, gulf, gut, hydrothermal vent, ice mass, isthmus, karst area, lake, lava field, ledge, massif, mesa, mineral deposit area, moraine, mountain, mountain summit, ocean trench, outcrop, plain, plateau, playa, reef, ridge, rift zone, roadcut, seamount, sea, stream, submarine canyon, syncline, thermal feature, valle
Site	Site Type	natural outcrop, artificial outcrop, drill site, trench, surface, other
Site	Section Thickness unit	m, dm, cm, mm, none

Category	Input Field	Dropdown Options
Sample	Alternative identifier type	DOI, Handle, LSID, URL, URN, IGSN
Sample	Related Resource Relation	is cited by, is part of, has part, is referenced by, references, is documented by, documents, is compiled by, compiles, is variant form of, is original form of, has
Sample	Related Resource Type	collection, data paper, dataset, event, image, interactive resource, moving image, other, physical object, service, software, sound, text , workflow
Sample	Related Resource identifier type	DOI, Handle, LSID, URL, URN, IGSN
Sample	Contributor Role	contact person, distributor, editor, funder, hosting institution, other, project leader, project manager, project member, related person, research group, rights sponsor, supervisor, work package leader
Sample	Sample Resource Type	Automated, Core , Core Half Round , Core Piece , Core Quarter Round, Core Section , Core Section Half, Core Sub-Piece , Core Whole Round , Cuttings , Core ca Foliage Digestion, Foliage Leaching, Forest floor digestion, Grab, Individual Sample, Oriented Core, Precipitation Bulk, Rock Powder, Standard Reference Specir Section, Thin Section, Unknown
Sample	Sample Recovery Technique	Blasting, Coring, Dredging, Grab, Manual, Manual>Hammer, Other, Unknown
Sample	Sample Collection Time	Calendar
Sample	Sample Access	Accessible, Restricted, Private, None
Sample	Data Access	D6 only, Project Only, Public
Sample	Sample Section Depth Unit	m, dm, cm, mm, none
Sample	Sample Composite Depth Unit	m, dm, cm, mm, none
Sample	Sample Depositional Process	pyroclastic flow, tephra fall, pyroclastic surge, lahar, hyper-concentrated flow, debris avalanche, redeposited pyroclastic material, other depositional or empla
Sample	Sample Material(s)	Air, Gas, Ice, Liquid (Aqueous), Liquid (Organic), Mineral, Organism, Particulate , Rock, Sediment, Tephra, Tissue, Unknown, Other
Sample	Sample Method	channel through entire stratum or layer, channel through selected sub-interval of stratum or layer, hand-picked clasts, measured-area (or mass-per-unit-area- incremental, random sample, unknown
Sample	Major/Minor Element Analysis Method(s)	SEM-EDS, glass, SEM-EDS, mineral, EPMA-WDS, glass, EPMA-WDS, mineral, XRF, whole-rock, none
Sample	Trace Element Analysis Method(s)	LA-ICP-MS, glass, LA-ICP-MS, mineral, XRF, whole-rock, ICP-MS, whole-rock, none
Sample	Isotope Analysis Method(s)	LA-MC-ICP-MS, glass, LA-MC-ICP-MS, mineral, MC-ICP-MS, whole-rock, MC-ICP-MS, glass separate, MC-ICP-MS, mineral separate, SIMS, glass, SIMS, mineral, T TIMS, glass separate, TIMS, mineral separate, nanoSIMS, glass, nanoSIMS, mineral, none
Sample	Sample Dating Method(s)	40Ar/39Ar, K-feldspar, 40Ar/39Ar, mica, 40Ar/39Ar, sanidine, 40Ar/39Ar, leucite, 40Ar/39Ar, plagioclase, 40Ar/39Ar, amphiboles, 40Ar/39Ar, biotite, 40Ar/39 40Ar/39Ar, glass, U-Pb, zircon, U-Pb, titanite, (U-Th)/ He, zircon, (U-Th)/ He, apatite, (U-Th)/ He, titanite, (U-Th)/ He, garnet, fission track, zircon, fission track, groundmass/whole-rock, K/Ar, mica, K/Ar, K-feldspar, K/Ar, amphibole, 14C, organic remains, 14C, carbonate, OSL, host sediment, ESR, host sediment, age mc paleomagnetic, host sediment

Category	Input Field	Dropdown Options
Physical Properties	Thickness Unit	m, dm, cm, mm, none
Physical Properties	Top Contact	planar parallel, cross-bedded, sharp, gradational, bioturbated, erosional, reworked

Physical Properties	Bottom Contact	planar parallel, cross-bedded, sharp, gradational, bioturbated, erosional, reworked
Physical Properties	Internal Bedding	massive, cross bedded, planar bedded, thin bedded, thick bedded, laminated
Physical Properties	Internal Sorting	very well sorted, well sorted, poorly sorted, very poorly sorted, unsorted
Physical Properties	Internal Grading	not graded, reverse, normal, reverse-normal, complex, density grading
Physical Properties	Glass Fragment Type	glass shards, pumice, scoria
Physical Properties	Glass Shard Morphology	platy (flaky shards), blocky (chunky, thick shards), ribbed, bubble wall (bw), bubble wall junction (bwj), slightly vesicular
Physical Properties	Vesicle Shape	spindles, cylindrical, conical, equant, irregular, round, closed, open
Physical Properties	Microscopic Shard Alteration	surficial, devitrified, pitted, not observed
Category	**Input Field**	**Dropdown Options**
Geochemistry	TAS classification(s)	Foidite, Picrite, Basalt, Basaltic Andesite, Andesite, Dacite, Rhyolite, Tephrite, Basanite, Phonotephrite, Tephriphonolite, Phonolite, Trachybasalt, Basaltic Trach Trachyandesite, Trachyte, Trachydacite, not defined yet
Geochemistry	87Sr/86Sr Analysis Method	LA-MC-ICP-MS, glass, LA-MC-ICP-MS, mineral, MC-ICP-MS, whole-rock, MC-ICP-MS, glass separate, MC-ICP-MS, mineral separate, SIMS, glass, SIMS, mineral, T TIMS, glass separate, TIMS, mineral separate, nanoSIMS, glass, nanoSIMS, mineral, none
Geochemistry	143Nd/144Nd Analysis Method	LA-MC-ICP-MS, glass, LA-MC-ICP-MS, mineral, MC-ICP-MS, whole-rock, MC-ICP-MS, glass separate, MC-ICP-MS, mineral separate, SIMS, glass, SIMS, mineral, T TIMS, glass separate, TIMS, mineral separate, nanoSIMS, glass, nanoSIMS, mineral, none
Geochemistry	176Hf/177Hf Analysis Method	LA-MC-ICP-MS, glass, LA-MC-ICP-MS, mineral, MC-ICP-MS, whole-rock, MC-ICP-MS, glass separate, MC-ICP-MS, mineral separate, SIMS, glass, SIMS, mineral, T TIMS, glass separate, TIMS, mineral separate, nanoSIMS, glass, nanoSIMS, mineral, none
Geochemistry	Pb Analysis Method	LA-MC-ICP-MS, glass, LA-MC-ICP-MS, mineral, MC-ICP-MS, whole-rock, MC-ICP-MS, glass separate, MC-ICP-MS, mineral separate, SIMS, glass, SIMS, mineral, T TIMS, glass separate, TIMS, mineral separate, nanoSIMS, glass, nanoSIMS, mineral, none
Category	**Input Field**	**Dropdown Options**
Chronology	Method	40Ar/39Ar, K-feldspar, 40Ar/39Ar, mica, 40Ar/39Ar, sanidine, 40Ar/39Ar, leucite, 40Ar/39Ar, plagioclase, 40Ar/39Ar, amphiboles, 40Ar/39Ar, biotite, 40Ar/39A 40Ar/39Ar, glass, U-Pb, zircon, U-Pb, titanite, (U-Th)/ He, zircon, (U-Th)/ He, apatite, (U-Th)/ He, titanite, (U-Th)/ He, garnet, fission track, zircon, fission track, groundmass/whole-rock, K/Ar, mica, K/Ar, K-feldspar, K/Ar, amphibole, 14C, organic remains, 14C, carbonate, OSL, host sediment, ESR, host sediment, age mo paleomagnetic, host sediment
Chronology	Type	single crystal fusion, multi crystal fusion, stepwise heating, solution, not appreciable
Chronology	Unit Ages	Ma, ka, ka cal BP
Category	**Input Field**	**Dropdown Options**
Chronostratigraphy	Erathem	Cenozoic, Mesozoic, Paleozoic, None
Chronostratigraphy	System	Quaternary, Neogene, Paleogene, Cretaceous, Jurassic, Triassic, Permian, Carboniferous, Devonian, Silurian, Ordovician, Cambrian, None
Chronostratigraphy	Series	Holocene, Pleistocene, Pliocene, Miocene, Oligocene, Eocene, Paleocene, Upper Cretaceous, Lower Cretaceous, Upper Jurassic, Middle Jurassic, Lower Jurassi Middle Triassic, Lower Triassic, Lopingian, Guadalupian, Cisuralian, Pennsylvanian, Mississippian, Upper Devonian, Middle Devonian, Lower Devonian, Pridoli, Llandovery, Upper Ordovician, Middle Ordovician, Lower Ordovician, Furongian, Miaolingian, Series 2, Terreneuvian, None
Chronostratigraphy	Stage	Meghalayan, Northgrippian, Greenlandian, Upper Pleistocene, Chibanian, Calabrian, Gelasian, Piacenzian, Zanclean, Messinian, Tortonian, Serravallian, Langhi Aquitanian, Chattian, Upelian, Priabonian, Bartonian, Lutetian, Ypresian, Thanetian, Selandian, Danian, Maastrichtian, Campanian, Santonian, Coniacian, Turor Albian, Aptian, Barremian, Hauterivian, Valanginian, Berriasian, Tithonian, Kimmeridgian, Oxfordian, Callovian, Bathonian, Bajocian, Aalenian, Toarcian, Pliensb Hettangian, Rhaetian, Norian, Carnian, Ladinian, Anisian, Olenekian, Induan, Changhsingian, Wuchiapingian, Capitanian, Wordian, Roadian, Kungurian, Artinsk Asselian, Gzhelian, Kasimovian, Bashkirian, Serpukhovian, Visean, Tournaisian, Famennian, Frasnian, Givetian, Eifelian, Emsian, Pragian, Lochkovian, Pridoli-un Gorstian, Homerian, Sheinwoodian, Telychian, Aeronian, Rhuddanian, Hirnantian, Katian, Sandbian, Darriwilian, Dapingian, Floian, Tremadocian, Stage 10, Jian Guzhangian, Drumian, Wuliuan, Stage 4, Stage 3, Stage 2, Fortunian, None
Chronostratigraphy	Age Range Age Unit	Ma, ka, ka cal BP
Chronostratigraphy	Marine Isotope Stage	MIS 1-MIS104, G1-G22, K1, K2, KM1-KM6, M1, M2, MG1-MG12
Tephra Correlation Group	Tephra Correlations Group	growing list of groups registered within TephAta
Tephra Correlation Group	Unit Ages	Ma, ka, ka cal BP
Tephra Correlation Group	Mineral Phase	zircon, glass , K-feldspar, leucite, micas, plagioclase, amphiboles, organic remains, host sediment, titanite, apatite, biotite, muscovite, sanidine, garnet, ground other
Tephra Correlation Group	Dating Method	40Ar/39Ar , U-Pb , (U-Th)/ He, fission track, K/Ar, 14C, OSL, ESR, paleomagnetic, age model, N/A