



Term Dictionary

of the International Geological Map of Europe and Adjacent
Areas
(IGME 5000)

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Term Dictionaries of the International Geological Map of Europe and Adjacent Areas (IGME 5000)

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1. Time chart

Table 1. The IGME 5000 time chart table, after IUGS International Stratigraphic Chart (Remane et al., 2000)

Age_txt	Oldest	Newest	Symbol
Holocene	0,01	0	Q2
Pleistocene	1,80	0,01	Q1
Quaternary	1,80	0	Q
Pliocene	5,3	1,80	N2
Miocene	23,5	5,3	N1
Neogene to Quaternary	23,5	0	N-Q
Neogene	23,5	1,80	N
Oligocene-Miocene	33,7	5,3	E3-N1
Oligocene	33,7	23,5	E3
Eocene to Pliocene	53	1,80	E2-N2
Eocene to Oligocene	53	23,5	E2-3
Eocene	53	33,7	E2
Palaeocene to Eocene	65	33,7	E1-2
Palaeocene	65	53	E1
Palaeogene	65	23,5	E
Cenozoic	65	0	CZ
Late Cretaceous to Eocene	96	33,7	K2-E2
Late Cretaceous to Palaeocene	96	53	K2-E1
Late Cretaceous	96	65	K2
Early Cretaceous	135	96	K1
Cretaceous-Neogene	135	1,80	K-N
Cretaceous to Oligocene	135	23,5	K-E3
Cretaceous to Palaeogene	135	23,5	K-E
Cretaceous to Eocene	135	33,7	K-E2
Cretaceous to Palaeocene	135	53	K-E1
Cretaceous	135	65	K
Late Jurassic	154	135	J3
Middle to Late Jurassic	175	135	J2-3
Middle Jurassic	175	154	J2
Early to Middle Jurassic	203	154	J1-2
Alpine	221	0,01	ALP
Early Jurassic	203	175	J1
Jurassic to Palaeogene	203	23,5	J-P
Jurassic to Cretaceous	203	65	J-K
Jurassic	203	135	J
Late Triassic	230	203	T3
Middle to Late Triassic	240	203	T2-3
Middle Triassic	240	230	T2
Early to Middle Triassic	250	230	T1-2
Early Triassic	250	240	T1
Triassic to Jurassic	250	135	T-J
Triassic	250	203	T
Mesozoic	250	65	MZ
Late Permian	260?	250	P3
Middle Permian	272,2	260?	P2
Early Permian	295	272,2	P1
Permian to Cretaceous	295	65	P-K
Permian to Jurassic	295	135	P-J
Permian to Triassic	295	203	P-T
Permian	295	250	P
Late Carboniferous to Palaeogene	320	23,5	C2-E

Age_txt	Oldest	Newest	Symbol
Late Carboniferous	320	295	C2
Early Carboniferous	355	320	C1
Carboniferous to Permian	355	250	C-P
Carboniferous	355	295	C
Late Devonian to Early Carboniferous	375	320	D3 – C1
Late Devonian	375	355	D3
Variscan	380	221	VAR
Middle to Late Devonian	390	355	D2-3
Middle Devonian to Early Carboniferous	390	320	D2-C1
Middle Devonian	390	375	D2
Early to Middle Devonian	410	375	D1-2
Early Devonian	410	390	D1
Devonian to Permian	410	250	D-P
Devonian to Carboniferous	410	295	D-C
Devonian	410	355	D
Late Silurian	425	410	S3-4
Early Silurian	435	430	S1-2
Silurian to Early Devonian	435	390	S-D1
Silurian to Devonian	435	355	S-D
Silurian	435	410	S
Late Ordovician to Silurian	455	410	O3-S
Late Ordovician	455	435	O2
Middle Ordovician	465	455	O3
Early to Middle Ordovician	500	455	O1-2
Early Ordovician	500	465	O1
Ordovician to Carboniferous	500	295	O-C
Ordovician to Silurian	500	410	O-S
Ordovician	500	435	O
Late Cambrian	510?	500	ε3
Middle to Late Cambrian	520	510?	ε2-3
Middle Cambrian	520	500	ε2
Early to Middle Cambrian	540	520	ε1-2
Early Cambrian	540	520	ε1
Cambrian to Carboniferous	540	295	ε-C
Cambrian to Late Devonian	540	355	ε-D3
Cambrian to Silurian	540	410	ε-S
Cambrian to Ordovician	540	435	ε-O
Cambrian	540	500	ε
Caledonian	800	370	CAL
Palaeozoic to Mesozoic	540	65	PZ-MZ
Palaeozoic to Triassic	540	203	PZ-T
Palaeozoic	540	250	PZ
Phanerozoic	540	0	PH
Proterozoic III to Cambrian	1000	500	NP-ε
Proterozoic III to Palaeozoic	1000	250	NP-PZ
Proterozoic III	1000	540	NP
Proterozoic II to III	1600	540	MP-NP
Proterozoic II	1600	1000	MP
Proterozoic I to II	2500	1000	PP-MP
Proterozoic I	2500	1600	PP

Age_txt	Oldest	Newest	Symbol
Proterozoic to Palaeozoic	2500	250	PR-PZ
Proterozoic	2500	540	PR
Archaean to Cambrian	4500	500	AR-ε
Archaean to Proterozoic I	4500	1600	AR-PP
Archaean	4500	2500	AR

Age_txt	Oldest	Newest	Symbol
Precambrian to Palaeozoic	4500	250	Pε-PZ
Precambrian	4500	540	Pε
undifferentiated	5999	0	UN

2. Lithology

Rock	Category
Igneous rocks	
- Plutonic rocks	plutonic
- Volcanic rocks	volcanic
- Dykes	
- Volcano-sedimentary rocks	volcano-sedimentary
Sedimentary rocks:	sedimentary
Metamorphic rocks	metamorphic

2.1 Sedimentary Rocks

Groups

- Unconsolidated siliciclastics
- Consolidated siliciclastics
- Unconsolidated carbonates
- Consolidated carbonates
- Evaporites
- Other sedimentary rocks

Table 2-1 The IGME 5000 scheme for the lithology of sedimentary (advisory: Prof. Dr. S. B. Kroonenberg, TU Delft and Dr. J. Powell, BGS)

Petro_sed_txt	Category	Symbol
Unconsolidated siliciclastics	<i>sed</i>	UCONS
Clay	<i>sed</i>	CL
Silt	<i>sed</i>	ST
Sand	<i>sed</i>	SD
Gravel	<i>sed</i>	GRV
Mud	<i>sed</i>	MD
siliceous ooze	<i>sed</i>	SILOOZ
consolidated siliclastics	<i>sed</i>	CONS
Mudstone	<i>sed</i>	
Claystone	<i>sed</i>	CLST
Siltstone	<i>sed</i>	STST
Sandstone	<i>sed</i>	SDST
Conglomerate	<i>sed</i>	CONG
Unconsolidated Carbonates	<i>sed</i>	UCONCAR
Marl	<i>sed</i>	ML
Carbonate ooze	<i>sed</i>	CAROOZ
Consolidated carbonates	<i>sed</i>	CONCAR
Chalk	<i>sed</i>	CHA

Petro_sed_txt	Category	Symbol
Phosphorite	<i>sed</i>	PHO
Marlstone	<i>sed</i>	MLST
Dolostone	<i>sed</i>	DOL
Limestone	<i>sed</i>	LMST
Evaporites	<i>sed</i>	EVAP
Gypsum	<i>sed</i>	GYP
Anhydrite	<i>sed</i>	ANH
Rock salt	<i>sed</i>	SLT
other sedimentary rocks	<i>sed</i>	OSR
Coal	<i>sed</i>	COAL
Ironstone	<i>sed</i>	FEST
Tillite	<i>sed</i>	TIL
Chert	<i>sed</i>	CHE
Lignite	<i>sed</i>	LIG
Bauxite	<i>sed</i>	BAUX
Undifferentiated	<i>sed</i>	SED

2.2 Igneous Rocks

2.21 Intrusive Rocks

Groups

- Granite,
- Granodiorite-Granite,
- Syenite-Monzonite,
- Gabbro,
- Essexite-Theralithe,
- Alkaline,
- Ultramafic.

Table 2-2. The IGME 5000 plutonic/intrusive rock classification (after Streckeisen, 1976)

Petro_plut_txt	Category	Symbol
Granite group	plut	GR
Q granitoide	plut	QG
Granite	plut	G
Granodiorite-diorite group	plut	GDDR
Granodiorite	plut	GD
Tonalite	plut	TO
Diorite	plut	D
Monzodiorite	plut	MZD
Syenite-monzonite group	plut	SYMZR
Syenite	plut	SY
Monzonite	plut	MZ
Gabbro group	plut	GOR
Gabbro	plut	GO
Norite	plut	NO
Monzogabbro	plut	MZGO
Essexite-theralite group	plut	EXTHR
Essexite	plut	EX
Theralite	plut	TH
Foidite	plut	FO
Plutonic alkaline group	plut	PALKR
Alkali granite	plut	PALKG
Alkali syenite	plut	PALKSY
Foyaite, plagifoyaite	plut	PALKFOY
Plutonic ultramafic group	plut	PUMR
Peridotite, dunite, harzburgite, lherzolute	plut	PDHAL
Undifferentiated	plut	PLUT

2.22 Extrusive rocks

The Streckeisen Q-A-F-P double diagram for volcanic rocks was used and the extrusive rocks fields (Table 4-27) also summarised within seven groups:

Groups

- Rhyolite,
- Trachyte,
- Andesite,
- Basalt,
- Tephrite,
- Alkaline,
- Ultramafic
- Volcano-sedimentary rocks (see 2.23)

Table 2-3. The IGME 5000 volcanic / extrusive rock classification (after Streckeisen, 1978)

Petro_volc_txt	Category	Symbol
Rhyolite group	volc	RYR
Rhyolite	volc	RY
Rhyodacite	volc	RYDA
Trachyte group	volc	TRYR
Trachyte	volc	TRY
Latite	volc	LA
Andesite group	volc	ANR
Dacite	volc	DA
Q andesite	volc	QAN
Andesite	volc	AN
Latite andesite	volc	LAAN
Basalt group	volc	BR
Latite basalt	volc	LAB
Hawaiite	volc	HAW
Olivine basalt	volc	OLB
Tholeiitic basalt	volc	TOB
Tephrite group	volc	TEPR
Tephrite, basanite	volc	TEPBA
Phonolite	volc	PHO
Phonolitic tephrite, tephritic phonolite	volc	PHOTEP
Volcanic alkaline group	volc	VALKR
Alkali rhyolite	volc	VALKRY
Alkali trachyte	volc	VALKTR
Alkali basalt	volc	VALKB
Nephelinitic, leucitic and analcitic rocks	volc	NLA
Volcanic ultramafic group	volc	VUM
Melilitite, picrite	volc	VUML
Undifferentiated	volc	VOLC

2.23 Pyroclastic Rocks

Table 2-4. Classification of volcano-sedimentary rocks (pyroclastics) of the IGME 5000

Petro_vsed_txt	Category	Symbol
Tuffite	vsed	TFTR
Rhyolite tuffite	vsed	RYTFT
Andesite tuffite	vsed	ANTFT
basalt tuffite	vsed	BTFT
Tephrite tuffite	vsed	TPHTFT
Ultramafic tuffite	vsed	VUMTFT
Volcanic Agglomerate/Breccia	vsed	AGGR
Rhyolite agglomerate/breccia	vsed	RYAGG
Andesite agglomerate/breccia	vsed	ANAGG
Basalt agglomerate/breccia	vsed	BAGG
Alcaline agglomerate/breccia	vsed	VALKAGG
Tephrite agglomerate /breccia	vsed	TPHAGG
Ultramafic agglomerate/breccia	vsed	VUMAGG
Tuff	vsed	TUFR
Rhyolite tuff	vsed	RYTUF
Andesite tuff	vsed	ANTUF
Basalt tuff	vsed	BTUF
Alcaline tuff	vsed	VALKTUF
Tephrite tuff	vsed	TPHTUF
Ultramafic tuff	vsed	VUMTUF
Undifferentiated	vsed	VSED

2.3 Metamorphic Rocks

Table 2-5. The IGME 5000 metamorphic rock list (equates to the IGME 5000 term dictionary)

Petro_meta_txt	Cat.	symbol
Schist Group	meta	SCHGR
Green schist	meta	GRESCH
Mica schist	meta	MISCH
Blue schist	meta	BLUSCH
Meta-Sedimentary Rock Group	meta	M-SEDR
Meta-sandstone	meta	M-SDST
Marble	meta	MAR
Quartzite	meta	QZT
Slate/Shale	meta	SHA
Phyllite	meta	PHY
Meta-Volcanic Rock Group	meta	M-SEDR
Meta-Basalt Group	meta	MBR
Meta-Plutonic Rock Group	meta	M-PLUTR
Meta-Gabbro Rock Group	meta	M-GOR
Meta-Granite Rock Group	meta	M-GR
Meta Plutonic Ultramafic Rock Group	meta	M-PUMR
Meta-Peridotite	meta	M-PERI
Miscellaneous Metamorphic Rock Group	meta	M-MISCR
Serpentinite	meta	SERP
Gneiss	meta	GN
Amphibolite	meta	AMPH
Eclogite	meta	ECLO

Petro_meta_txt	Cat.	symbol
Granulite	meta	GRAN
Migmatite/anatexite	meta	MIGMANA
Mylonite	meta	MYL
Undifferentiated	meta	META

Table 2-6. The IGME 5000 metamorphic classification referring to grade and P/T (modified after Winkler, 1979)

Meta_grade_txt	symbol
very low grade	VLG
very low to low grade	VLLG
very low to high grade	VLHG
low grade	LG
low to medium grade	LMG
low to high grade	LHG
medium grade	MG
medium to high grade	MHG
high grade	HG
high pressure - low temperature	HPLT
low pressure – low temperature	LPLT
low pressure - high temperature	LPHT
high pressure - high temperature	HPHT
ultrahigh pressure - high temperature	UHPHT
undifferentiated	META

3. Tectonic Environment

Table 3-1. The IGME 5000 list of elements of the tectonic environment (equates to the IGME 5000 term dictionary).

ID	Tecto_gen_txt	count_no	Symbol
1	mid ocean ridge	35	MOR
2	deep sea floor	50	DSF
3	marine platform	60	MARPL
4	continental margin	70	CONMAR
5	orogenic belt	110	OROB
6	foreland basin	112	FOLBAS
7	hinterland basin	113	HILBAS
8	Arc related basin	114	ARLB
9	sedimentary basin	130	SEDBAS
10	continental rift	180	CONRIFT
11	within plate (magmatism)	190	WIPL
12	continental basement/crust	200	CONCRU
13	magmatic arc	210	MARC
14	undifferentiated	300	UN

4. Genetic Elements

Table 4-1. IGME 5000 list of genetic elements (equates to the IGME 5000 term dictionary).

ID	genet_el_txt	Symbol
1	flysch (sediments)	FLYSCH
2	molasse	MOL
3	marine molasse	MARMOL
4	continental molasse	CONMOL
5	turbidite	TUR
6	olistostrome	OLIST
7	salt diapirism	SLTDIA
8	ophiolite complex	OPH
9	hot spot	HOSP
10	flood basalt	FLOOB
11	basement	BAS
12	ultramafic layered complex	LAYCOM
13	continental mantle fragment	MANFR
14	zoned intrusion (AUT)	AUT
15	strato-volcanic complex	SVC
17	impact melt	IMP
	Dyke	DYKE
18	undifferentiated	UN

5. Submarine morphologic elements

Table 5-1 IGME 5000 list of morphologic elements (equates to the IGME 5000 term dictionary).

ID	submar_morph_txt	Symbol
1	plateau	PLAT
2	trench	TREN
3	seamount	SEAMT
4	ridge	RID
5	abyssal plain	ABYPL
6	river cone	RIVCO
7	range	RAN
8	platform	PLTF
9	block	BLO

10	escarpment	ESC
11	trough	TRO
12	(extensional area)	EXTAR
13	massif	MAS
14	rift	RIFT
15	shelf	SLF
16	graben	GRA