



# The Portuguese (PT) version of the “International Chronostratigraphic Chart”: a new approach

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Note: The authors have been listed alphabetically on purpose, as each has contributed an equal amount of time and expertise in the development of the present research.

## Abstract

The Academy of Sciences of Lisbon conducted an extensive study to establish an updated Portuguese (PT) terminology for chronostratigraphic/geochronologic units of selected Geological Timetables.

The study, coordinated by M.J. Lemos de Sousa and Ana Salgado, was developed by a joint task force between the Earth and Space Sciences section of the Class of Sciences and the Institute of Lexicology and Lexicography of the Academy.

In addition to establishing an updated terminology in the subdomain of Stratigraphy, the study should also be regarded as a valuable contribution to the Academy’s newly developed *Dictionary* and *Vocabulary*, which is currently available online.

In pursuit of this objective, the authors considered the mandatory rules of both the *International Stratigraphic Guide* (Salvador 1994, reapproved 2013), and the erudite norm of the Portuguese language variety.

The following Geological Timetables were considered in the study:

- International Geological Timetable, usually referred to as the “standard” or “global” table, published by the International Union of Geological Sciences/International Commission on Stratigraphy as the “International Chronostratigraphic Chart”.
- Detailed Geological Timetable of the Quaternary, traditionally considered as a complementary chart of the global one.
- Geologic Timetable of the Bohemo-Iberian Ordovician regional chronostratigraphic units, specifically needed for the classification of Portuguese Ordovician units.
- Geologic Timetable of the West European Carboniferous regional chronostratigraphic units, specifically needed for the classification of Iberian terrestrial Carboniferous units.

In this poster, the authors present the “International Chronostratigraphic Chart” in both English and its corresponding new version in Portuguese (PT). In cases where linguistic rules allowed for the validation of various Portuguese orthographic variants, the variant used in the general table corresponds to the preferred form.

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## Precambrian / Precâmbrico

Eonothem Eon	Erathem Era	System Period	Eonotema Eon	Eratema Era	Sistema Período		
Precambrian	Proterozoic	Ediacaran	Precâmbrico	Proterozoico	Ediacárico	541,0 ± 1,0 Ma	
		Neoproterozoic			Neoproterozoico		
		Cryogenian			Criogénico		
		Tonian			Tónico		
		Stenian			Esténico		
	Meso-proterozoic	Ectasian	Arcaico	Arcaico	Mesoproterozoico	Ectásico	
		Calymmian			Calímico		
		Paleoproterozoic			Paleoproterozoico		
		Statherian			Estatérico		
		Orosirian			Orosírico		
Archean	Neo-archean	Hádico	Hádico	Neoarcaico		2500 Ma	
	Meso-archean			Mesoarcaico			
	Paleo-archean			Paleoarcaico			
	Eo-archean			Eoarcaico			
Hadean						4000 Ma	
						4567,30 ± 0,16 Ma	

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## Phanerozoic / Paleozoic - Fanerozoico / Paleozoico

Eonothem Eon	Erathem Era	System Period	Series Epoch	Stage Age	Eonotema Eon	Eratema Era	Sistema Período	Série Época	Andar Idade	
Phanerozoic	Paleozoic	Permian	Lopingian	Changhsingian	Fanerozoico	Paleozoico	Pérmico	Lopingiano	Changhsingiano	252,17 ± 0,06 Ma
			Wuchiapingian	Wuchiapingiano						
			Guadalupian	Capitanian				Guadalupiano	Capitaniano	
			Wordian	Wordiano				Wordiano	Wordiano	
			Roadian	Roadiano				Roadiano	Roadiano	
			Cisuralian	Kungurian				Cisuraliano	Kunguriano	
		Carboniferous	Artinskian	Artinskiano			Artinskiano	Artinskiano		
			Sakmarian	Sakmariano			Sakmariano	Sakmariano		
			Asselian	Asseliano			Asseliano	Asseliano		
			Gzhelian	Gzheliano			Gzheliano	Gzheliano	298,9 ± 0,15 Ma	
			Upper	Kasimovian			Superior	Kasimoviano		
			Middle	Moscovian			Médio	Moscoviano		
	Devonian	Lower	Bashkirian	Inferior	Bashkiriano	323,2 ± 0,4 Ma				
		Upper	Serpukhovian	Superior	Serpukhoviano					
		Middle	Visean	Médio	Viseano					
		Lower	Tournaisian	Inferior	Tournaisiano	358,9 ± 0,4 Ma				
		Upper	Famennian	Superior	Famenniano					
		Middle	Frasnian	Médio	Frasniano					
	Silurian	Givetian	Givetiano	Givetiano	Givetiano					
		Eifelian	Eifeliano	Eifeliano	Eifeliano					
		Lower	Emsian	Inferior	Emsiano					
		Pragian	Praguiano	Praguiano	Praguiano					
		Lochkovian	Lochkoviano	Lochkoviano	Lochkoviano	419,2 ± 3,2 Ma				
		Pridoli	Pridoli	Pridoli	Pridoli					
Ordovician	Ludlow	Ludfordian	Ludlow	Ludfordiano						
	Wenlock	Gorstian	Wenlock	Gorstiano						
	Llandovery	Homerian	Homeriano	Homeriano	Homeriano					
		Sheinwoodian	Sheinwoodiano	Sheinwoodiano	Sheinwoodiano					
	Rhuddanian	Telychian	Telychiano	Llandovery	Telychiano					
		Aeronian	Aeroniano	Rhuddanian	Aeroniano	443,8 ± 1,5 Ma				
Ordovician	Upper	Hirnantian	Superior	Hirnantiano						
	Middle	Katian	Médio	Katiano						
	Lower	Sandbian	Inferior	Sandbiano						
Cambrian	Upper	Darriwilian	Superior	Darriwiliano						
	Middle	Dapingian	Médio	Dapinguiano						
	Lower	Floian	Inferior	Floiano						
	Stage 10	Tremadocian	Tremadociano	Tremadociano	485,4 ± 1,9 Ma					
	Furongian	Andar 10	Furunguiano	Jiangshanian						
	Miaolingian	Paibian	Miaolingiano	Paibiano						
Series 2	Guzhangian	Guzhangiano	Guzhangiano	Guzhangiano						
	Drumian	Drumiano	Drumiano	Drumiano						
	Wuliuan	Wuliuiano	Wuliuiano	Wuliuiano						
	Stage 4	Andar 4	Série 2	Andar 4						
Terreneuvian	Stage 3	Andar 3	Terranoviano	Andar 3						
	Stage 2	Andar 2	Fortuniano	Andar 2	541,0 ± 1,0 Ma					
Fortunian	Fortuniano	Fortuniano	Fortuniano							

M.J. Lemos de Sousa e Ana Salgado, 2023

## Phanerozoic / Mesozoic and Cenozoic - Fanerozoico / Mesozoico e Cenozoico

Eonothem Eon	Erathem Era	System Period	Series Epoch	Stage Age	Eonotema Eon	Eratema Era	Sistema Período	Série Época	Andar Idade	
Phanerozoic	Cenozoic	Quaternary	Holocene	Meghalayan	Fanerozoico	Cenozoico	Quaternário	Holocénico	Megalaiano	presente
			Pleistocene	Northgrippian				Nortegripiano		
				Greenlandian				Gronelandiano		
			Upper	Chibanian				Superior	Chibaniano	
		Calabrian	Calabriano	Pliocene			Calabrian	Pliocénico (4)		
		Neogene	Gelasian	Gelasiano			Pliocene	Placencian	2,58 Ma	
			Piacenzian	Piacenciano			Zanclean	Zancleano		
			Miocene	Miocénico			Messinian	Messiniano		
			Tortonian	Tortoniano			Serravallian	Serravalliano		
		Paleogene	Langhian	Languiano			Miocene	Langhian		
			Burdigalian	Burdigaliano			Burdigalian	Burdigaliano		
			Aquitanian	Aquitaniano			Aquitanian	Aquitaniano		
	Oligocene		Oligocénico	Chatthian	Catiano	23,03 Ma				
	Rupelian		Rupeliano	Priabonian	Priaboniano					
	Eocene		Eocénico	Bartonian	Bartoniano					
	Paleocene	Lutetian	Luteciano (3)	Lutetian	Luteciano (3)					
		Ypresian	Ipresiano	Ypresian	Ipresiano					
		Thanetian	Thanetiano	Thanetian	Thanetiano					
		Selandian	Selandiano	Selandian	Selandiano					
		Danian	Daniano	Danian	Daniano	66,0 Ma				
		Maastrichtian	Maastrichtiano	Maastrichtian	Maastrichtiano					
	Mesozoic	Cretaceous	Upper	Campanian	Superior	Campaniano				
			Santonian	Santoniano	Santonian	Santoniano				
			Coniacian	Coniaciano	Coniacian	Coniaciano				
			Turonian	Turoniano	Turonian	Turoniano				
			Cenomanian	Cenomaniano	Cenomanian	Cenomaniano				
			Albian	Albiano	Albian	Albiano				
		Jurassic	Aptian	Aptiano	Lower	Aptian				
			Barremian	Barremiano	Barremian	Barremiano				
			Hauterivian	Hauteriviano	Hauterivian	Hauteriviano				
			Valanginian	Valanginiano	Valanginian	Valanginiano				
			Berriasian	Berriasiano	Berriasian	Berriasiano	~145,0 Ma			
			Titthonian	Titoniano	Upper	Titthonian				
	Triassic	Kimmeridgian	Kimmeridgiano	Upper	Kimmeridgian					
		Oxfordian	Oxfordiano	Oxfordian	Oxfordiano					
		Callovian	Calloviano	Médio	Calloviano					
		Bathonian	Bathoniano	Bathonian	Bathoniano					
		Bajocian	Bajociano	Bajocian	Bajociano					
		Aalenian	Aaleniano	Lower	Aalenian					
	Triassic (1)	Toarcian	Toarciano	Lower	Toarcian					
		Pliensbachian	Pliensbachiano	Pliensbachian	Pliensbachiano					
		Sinemurian	Sinemuriano	Sinemurian	Sinemuriano					
Hettangian		Hettangiano	Hettangian	Hettangiano	201,3 ± 0,2 Ma					
Rhaetian		Reciano (2)	Upper	Rhaetian						
Norian		Noriano	Norian	Noriano						
Triassic (2)	Carnian	Carniano	Carnian	Carniano						
	Ladinian	Ladiniano	Ladinian	Ladiniano						
	Anisian	Anisiano	Médio	Anisian						
	Olenekian	Olenekiano	Olenekian	Olenekiano						
Induan	Induano	Lower	Induan	252,17 ± 0,06 Ma						

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Orthographic variants / Variantes gráficas: (1) Triásico, Triádico e Trias; (2) Retiano; (3) Lutetiano; (4) Pleistocénico



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