



INTERNATIONAL CHRONOSTRATIGRAPHIC CHART

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International Commission on Stratigraphy

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Eonothem / Eon	Erathem / Era	System / Period	Series / Epoch	Stage / Age	GSSP	numerical age (Ma)
Phanerozoic	Cenozoic	Quaternary	Holocene			present
			全新统	Upper		0.0117
				Middle		0.126
			Pleistocene	Calabrian		0.781
			更新统	Gelasian		1.80
		Neogene	Pliocene	Piacenzian		2.58
			上新统	Zanclean		3.600
		Miocene		Messinian		5.333
				Tortonian		7.246
				Serravallian		11.62
				Langhian		13.82
				Burdigalian		15.97
				Aquitania		20.44
				Chattian		23.03
		Oligocene		Rupelian		28.1
				Priabonian		33.9
				Bartonian		38.0
				Lutetian		41.3
				Ypresian		47.8
	Paleogene	Eocene		Thanetian		56.0
				Selandian		59.2
				Danian		61.6
				Maastrichtian		66.0
				Campanian		72.1 ±0.2
		Upper Cretaceous		Santonian		83.6 ±0.2
				Coniacian		86.3 ±0.5
				Turonian		89.8 ±0.3
				Cenomanian		93.9
				Albian		100.5
	Mesozoic	Lower Cretaceous		Aptian		~ 113.0
				Barremian		~ 125.0
				Hauterivian		~ 129.4
				Valanginian		~ 132.9
				Berriasian		~ 139.8
						~ 145.0

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Phanerozoic	Mesozoic	Jurassic		Tithonian		~ 145.0
				Kimmeridgian		152.1 ±0.9
			Upper 上侏罗统	Oxfordian		157.3 ±1.0
				Callovian		163.5 ±1.0
				Bathonian		166.1 ±1.2
				Bajocian		168.3 ±1.3
				Aalenian		170.3 ±1.4
			Middle 中侏罗统	Toarcian		174.1 ±1.0
				Pliensbachian		182.7 ±0.7
				Sinemurian		190.8 ±1.0
				Hettangian		199.3 ±0.3
				Rhaetian		201.3 ±0.2
		Triassic		Norian		~ 208.5
			Upper 上三叠统	Carnian		~ 227
				Ladinian		~ 237
			Middle 中三叠统	Anisian		~ 242
				Olenekian		247.2
	Paleozoic	Permian		Induan		251.2
			Lower 下三叠统	Changhsingian		252.17 ±0.06
				Wuchiapingian		254.14 ±0.07
			Lopingian	Capitanian		259.8 ±0.4
			乐平统	Wordian		265.1 ±0.4
			Guadalupian	Roadian		268.8 ±0.5
			瓜德鲁普统	Kungurian		272.3 ±0.5
				Artinskian		283.5 ±0.6
				Sakmarian		290.1 ±0.26
				Asselian		295.0 ±0.18
		Carboniferous		Gzhelian		298.9 ±0.15
			Upper 上	Kasimovian		303.7 ±0.1
			Middle 中	Moscovian		307.0 ±0.1
			Lower 下	Bashkirian		315.2 ±0.2
				Serpukhovian		323.2 ±0.4
			Upper 上	Visean		330.9 ±0.2
			Middle 中	Tournaisian		346.7 ±0.4
			Lower 下			358.9 ±0.4

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Phanerozoic	Paleozoic	Devonian		Famennian		358.9 ±0.4
			Upper 上泥盆统	Frasnian		372.2 ±1.6
				Givetian		382.7 ±1.6
			Middle 中泥盆统	Eifelian		387.7 ±0.8
				Emsian		393.3 ±1.2
			Lower 下泥盆统	Pragian		407.6 ±2.6
				Lochkovian		410.8 ±2.8
		Silurian		Ludfordian		419.2 ±3.2
			Pridoli	Gorstian		423.0 ±2.3
			普里道利统	Homerian		425.6 ±0.9
			罗德洛统	Sheinwoodian		427.4 ±0.5
			温洛克统	Telychian		430.5 ±0.7
	Ordovician	Llandovery		Aeronian		433.4 ±0.8
				Rhuddanian		438.5 ±1.1
				Hirnantian		440.8 ±1.2
				Katian		443.4 ±1.5
				Sandbian		445.2 ±1.4
		Upper Ordovician		Darriwilian		453.0 ±0.7
				Dapingian		458.4 ±0.9
				Floian		467.3 ±1.1
		Middle Ordovician		Tremadocian		470.0 ±1.4
						477.7 ±1.4
		Lower Ordovician				485.4 ±1.9
						~ 489.5
	Cambrian	Furongian		Jiangshanian		~ 494
				Paibian		~ 497
				Guzhangian		~ 500.5
		Series 3 第三统		Drumian		~ 504.5
				Stage 5		~ 509
		Series 2 第二统		Stage 4		~ 514
				Stage 3		~ 521
		Terreneuvian		Stage 2		~ 529
				Fortunian		541.0 ±1.0

国际地层年代表

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Eonothem / Eon	Erathem / Era	System / Period	Stage / Age	GSSP	numerical age (Ma)
Precambrian	Proterozoic	Neo-proterozoic	Ediacaran		~ 541.0 ±1.0
			Cryogenian		~ 635
			Tonian		850
		Meso-proterozoic	Stenian		1000
			Ectasian		1200
			Calymmian		1400
					1600
		Paleo-proterozoic	Statherian		1800
			Orosirian		2050
			Rhyacian		2300
	Archean	Neo-archean	Siderian		2500
					2800
					3200
		Meso-archean			3600
					4000
		Paleo-archean			~ 4600

Units of all ranks are in the process of being defined by Global Boundary Stratotype Section and Points (GSSP) for their lower boundaries, including those of the Archean and Proterozoic, long defined by Global Standard Stratigraphic Ages (GSSA). Charts and detailed information on ratified GSSPs are available at the website <http://www.stratigraphy.org>. The URL to this chart is found below.

Numerical ages are subject to revision and do not define units in the Phanerozoic and the Ediacaran; only GSSPs do. For boundaries in the Phanerozoic without ratified GSSPs or without constrained numerical ages, an approximate numerical age (–) is provided.

Numerical ages for all systems except Lower Pleistocene, Permian, Triassic, Cretaceous and Precambrian are taken from 'A Geologic Time Scale 2012' by Gradstein et al. (2012); those for the Lower Pleistocene, Permian, Triassic and Cretaceous were provided by the relevant ICS subcommissions.

Coloring follows the Commission for the Geological Map of the World (<http://www.cgmw.org>)

Chart drafted by K.M. Cohen, S.C. Finney, P.L. Gibbard (c) International Commission on Stratigraphy, February 2014

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URL: <http://www.stratigraphy.org/ICSchart/ChronostratChart2014-02.pdf>

