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INTERNATIONAL CHRONOSTRATIGRAPHIC CHART

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国际地层表











International Commission on Stratigraphy
August 2012



Eonothem / Era System / Period	统/世 Series / Epoch	阶/期 Stage / Age	GSSP	numerical age (Ma)
Phanerozoic 显生宙 (PH)	Cenozoic 新生代 (Kz)	第四系 (Q) Quaternary	全新统 Holocene	present
			更新统 Pleistocene	0.0117
			Calabrian	0.126
			Gelasian	0.781
		上新统 Pliocene	Piacenzian	1.806
			Zanclean	2.588
			Messinian	3.600
			Tortonian	5.333
		中新统 Miocene	Serravallian	7.246
			Langhian	11.62
			Burdigalian	13.82
			Aquitania	15.97
	Paleogene 古近系 (E)	渐新统 Oligocene	Chattian	20.44
			Rupelian	23.03
		始新统 Eocene	Priabonian	28.1
			Bartonian	33.9
			Lutetian	38.0
			Ypresian	41.3
		古新统 Paleocene	Thanetian	47.8
			Selandian	56.0
			Danian	59.2
				61.6
Mesozoic 中生界 (Mz)	中生界 (Mz)	上白垩统 Upper	Maastrichtian	66.0
			Campanian	72.1 ± 0.2
			Santonian	83.6 ± 0.2
			Coniacian	86.3 ± 0.5
		下白垩统 Lower	Turonian	89.8 ± 0.3
			Cenomanian	93.9
			Albian	100.5
			Aptian	~ 113.0
		白垩系 (K)	Barremian	~ 125.0
			Hauterivian	~ 129.4
			Valanginian	~ 132.9
			Berriasian	~ 139.8

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Phanerozoic 显生宙 (PH)	Mesozoic 中生界 (Mz)	上侏罗统 Upper	Tithonian	145.0 ± 0.8
			Kimmeridgian	152.1 ± 0.9
			Oxfordian	157.3 ± 1.0
			Callovian	163.5 ± 1.0
		中侏罗统 Middle	Bathonian	166.1 ± 1.2
			Bajocian	168.3 ± 1.3
			Aalenian	170.3 ± 1.4
			Toarcian	174.1 ± 1.0
		下侏罗统 Lower	Plinsbachian	182.7 ± 0.7
			Sinemurian	190.8 ± 1.0
			Hettangian	199.3 ± 0.3
				201.3 ± 0.2
Paleozoic 古生界 (Pz)	古生界 (Pz)	上三叠统 Upper	Rhaetian	~ 208.5
			Norian	~ 228
			Carnian	~ 235
			Ladinian	~ 242
		中三叠统 Middle	Anisian	247.2
			Olenekian	251.2
			Induan	252.2 ± 0.5
			Changhsingian	254.2 ± 0.1
		下三叠统 Lower	Wuchiapingian	259.9 ± 0.4
			Capitanian	265.1 ± 0.4
			Wordian	268.8 ± 0.5
			Roadian	272.3 ± 0.5
Paleozoic 古生界 (Pz)	古生界 (Pz)	乐平统 Lopingian	Kungurian	279.3 ± 0.6
			Artinskian	290.1 ± 0.1
			Sakmarian	295.5 ± 0.4
			Asselian	298.9 ± 0.2
		瓜德普鲁统 Guadalupian	Gzhelian	303.7 ± 0.1
			Kasimovian	307.0 ± 0.1
			Moscovian	315.2 ± 0.2
			Bashkirian	323.2 ± 0.4
		乌拉尔统 Cisuralian	Serpukhovian	323.2 ± 0.4
			Visean	330.9 ± 0.2
			Tournaisian	346.7 ± 0.4
				358.9 ± 0.4

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Phanerozoic 显生宙 (PH)	Paleozoic 古生界 (Pz)	Devonian 泥盆系 (D)	上泥盆统 Upper	Famennian	358.9 ±0.4
				Frasnian	372.2 ±1.6
			中泥盆统 Middle	Givetian	382.7 ±1.6
				Eifelian	387.7 ±0.8
			下泥盆统 Lower	Emsian	393.3 ±1.2
				Pragian	407.6 ±2.6
		Lochkovian		410.8 ±2.8	
		Silurian 志留系 (S)	普里多利统 Pridoli		419.2 ±3.2
			罗德洛统 Ludlow	Ludfordian	423.0 ±2.3
				Gorstian	425.6 ±0.9
			温洛克统 Wenlock	Homerian	427.4 ±0.5
				Sheinwoodian	430.5 ±0.7
			兰多维列统 Llandovery	Telychian	433.4 ±0.8
				Aeronian	438.5 ±1.1
				Rhuddanian	440.8 ±1.2
		Hirnantian		443.4 ±1.5	
		Ordovician 奥陶系 (O)	上奥陶统 Upper	Katian	445.2 ±1.4
				Sandbian	453.0 ±0.7
			中奥陶统 Middle	Darriwilian	458.4 ±0.9
	Dapingian			467.3 ±1.1	
	下奥陶统 Lower		Floian	470.0 ±1.4	
			Tremadocian	477.7 ±1.4	
	Cambrian 寒武系 (C)		芙蓉统 Furongian	Stage 10	485.4 ±1.9
				Jiangshanian	~ 489.5
		Paibian		~ 494	
		Series 3	Guzhangian	~ 497	
			Drumian	~ 500.5	
			Stage 5	~ 504.5	
		Series 2	Stage 4	~ 509	
			Stage 3	~ 514	
			Stage 2	~ 521	
		纽芬兰统 Terreneuvian	Fortunian	~ 529	
			541.0 ±1.0		

宇/宙 Eonothem / Eon		界/代 Era / System		系/纪 Series / Period		GSSP		numerical age (Ma)
Precambrian 前寒武系	Proterozoic 元古宇 (PT)	新元古界 (Pt ₃) Neo-proterozoic		Ediacaran		~ 541		
				Cryogenian		~ 635		
				Tonian		850		
		中元古界 (Pt ₂) Meso-proterozoic		Stenian		1000		
				Ectasian		1200		
				Calymmian		1400		
		古元古界 (Pt ₁) Paleo-proterozoic		Statherian		1600		
				Orosirian		1800		
				Rhyacian		2050		
				Siderian		2300		
			Archean 太古宇 (AR)	新太古界 Neo-archean			2500	
				中太古界 Meso-archean			2800	
	古太古界 Paleo-archean				3200			
	始太古界 Eo-archean				3600			
		冥古宇 (HD) Hadean				4000		
						~ 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>

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 Triassic, Cretaceous and Precambrian are taken from A Geologic Time Scale 2012 by Gradstein et al. (2012); those for the 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. Finney, P.L. Gibbard
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