

ガダルピアン世（ペルム紀）の海水 Sr 同位体ミニマム The Guadalupian (Permian) minimum of seawater $^{87}\text{Sr}/^{86}\text{Sr}$

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The Guadalupian (Permian) $^{87}\text{Sr}/^{86}\text{Sr}$ ratio of surface seawater recorded the unique Permian minimum (<0.7070) interval, the lowest in the Phanerozoic. Two mid-superoceanic carbonate sections in Japan, i.e. Akasaka and Kamura, recorded extremely low $^{87}\text{Sr}/^{86}\text{Sr}$ values for nearly 5 million years during the Capitanian (Late Guadalupian; ca. 265-260 Ma)(Kani et al., 2008; 2013). We newly found out the same signal for the first time at the Shizipo section in central Sichuan, South China (Futamori et al., 2013). This confirms that the minimum $^{87}\text{Sr}/^{86}\text{Sr}$ interval started already in the late Wordian (Middle Guadalupian). After the long-term late Guadalupian minimum, for more than 5 m. y., the seawater Sr isotope values increased in the most rapid manner during the Late Permian. This rapid increase can be explained either by the deglaciation or by the Pangean rifting. The regime likely shifted to a warmer climate that removed ice covers from continents and increased the erosion/weathering rate. With respect to the Pangean rifting, the continental doming by plume impingement might intensify erosion/weathering of surface of continent. The continental rifting with new drainage systems likely increased decisively the radiogenic continental flux to superocean.