

⁸⁷Sr/⁸⁶Sr Chemostratigraphy Across the Carboniferous-Permian Boundary

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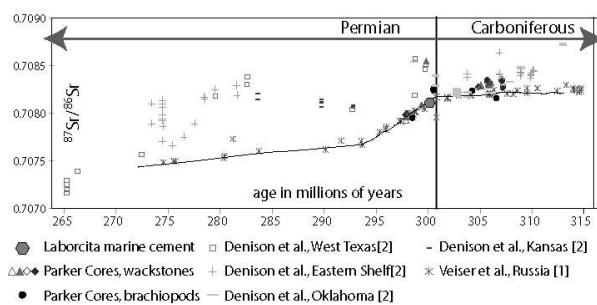
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The late Permian records one of the major ⁸⁷Sr/⁸⁶Sr lows of the Phanerozoic. The details of the decline from a late Carboniferous high of about 0.7082 to the ultimate low of 0.7069 are clouded by generally poor biostratigraphic control in the Permian. Based on U-Pb carbonate ages from calcretes and ⁸⁷Sr/⁸⁶Sr whole rock analyses from marine carbonates of the Central Basin Platform of the Permian Basin, we suggest that the decline in ⁸⁷Sr/⁸⁶Sr begins just before the Carboniferous-Permian boundary. Further, we postulate that this decline is uninterrupted to the major low based on comparison to results from type sections in Russia [1]. Overall, the change to less radiogenic values may signal a reduction in continental run-off, consistent with numerous sedimentologic proxies indicating drier climate going into the Permian.



Published datasets [1,2] are shifted by plus 11 Ma for comparison to U-Pb ages from the cores.

References

[1] Veiser et al. (1999) *Chem Geol* **161**, 59-88.

[2] Denison et al. (1994) *Chem Geol* **112**, 145-167.