An Effort toward better elucidation of paleoenvironmental events by decoding carbon isotopic curves

Takashi Hasegawa [1]

[1] Dept. Earth Sci., Kanazawa Univ.

http://kgeopp6.s.kanazawa-u.ac.jp/index.html

Plume activity may have controlled sea level, pCO2 and therefore, ecosystems on surface of the earth. Conspicuous excursions of carbon isotopic signals across major time-stratigraphic boundaries suggest that major modifications of ecosystems were accompanied by considerable turnover of the carbon cycle. A carbon isotopic event reflects global contemporaneous phenomenon and offers a chemostratigraphic datum plane as well as basic data for calculating carbon budget between ocean-atmosphere system and out of the system. Carbon isotopic fluctuation of atmospheric CO2 was estimated from isotopic curves from the Upper Cretaceous sequences. It offers a good example suggesting important role of carbon isotopic study on decoding paleoenvironment.