

Deep ocean acidity change over the Eocene Oligocene Transition

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The Eocene Oligocene Transition (EOT, 34–33.5 Ma) represents a fundamental shift in the evolution of Cenozoic climate from a “greenhouse” to an “icehouse” state. The onset of major Antarctic Cenozoic glaciation across the EOT took place rapidly, likely as a threshold response to slow atmospheric and superimposed orbital forcing and was associated with a pronounced perturbation in the global carbon cycle (*DeConto & Pollard, 2003; Coxall et al., 2005*). This carbon cycle perturbation is poorly understood. Here we report a preliminary record of $\delta^{11}\text{B-pH}$ in benthic foraminiferal calcite from IODP Pacific Equatorial Age Transect Expedition 320 in the eastern equatorial Pacific, to shed new light on the timing and magnitude of changes in deep ocean acidity across the EOT.

References:

Coxall et al. (2005) *Nature*, 433, 53-57; DeConto & Pollard (2003) *Nature*, 421, 245-249.