

A 30 second summary of the Rafter and Charles (2012) paper in *Paleoceanography*: Pleistocene equatorial Pacific dynamics inferred from the zonal asymmetry in sedimentary nitrogen isotopes

Bottom Line: Ocean conditions sensitive to the El Niño-Southern Oscillation (ENSO) are influenced by seasonal heating, but not greenhouse gases.

My aim is to understand future ENSO variability by reconstructing ENSO-related ocean conditions over known greenhouse gas changes. I chose to reconstruct the west-east gradient in surface nitrate utilization (A) using sediment $\delta^{15}\text{N}$ (B).

These ocean conditions, and by implication ENSO, were completely insensitive to greenhouse gas concentrations (B), which is a rare source of good news with respect to climate change research.

