

And... The one that didn't make it.

Radiocarbon evidence for autotrophic metabolism in marine planktonic Archaea

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Compound-specific radiocarbon analyses of lipids derived from marine planktonic *Crenarchaeota* suggest these organisms are chemoautotrophic, utilizing dissolved inorganic carbon below the euphotic zone in Santa Monica and Santa Barbara Basins. Stable carbon isotope data indicate these non-thermophilic *Archaea* may function like the closely related hyperthermophiles in their use of the 3-hydroxypropionate (3-HP) pathway of carbon assimilation. Archaeal autotrophy may be a universal deep-ocean process with significant implications for nutrient and energy cycles.

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