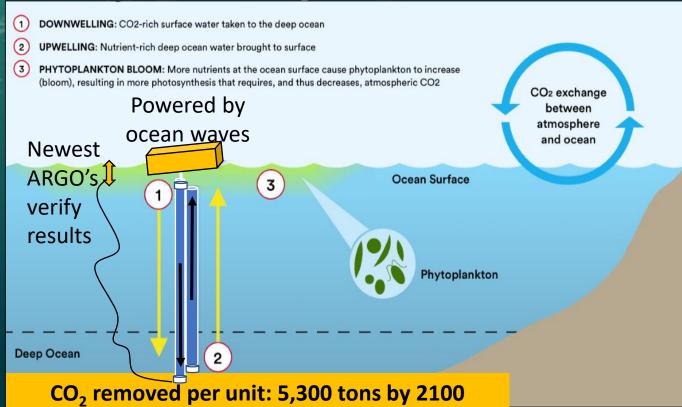
The Ocean Oxygenator pat. pending



5,000 Year removal Of CO₂ verified by newest ARGO's



"Microbial production of recalcitrant dissolved organic matter: long-term carbon storage in the global ocean." Nianzhi Jiao et.al., *Nature Microbiology* vol 8, August 2010.

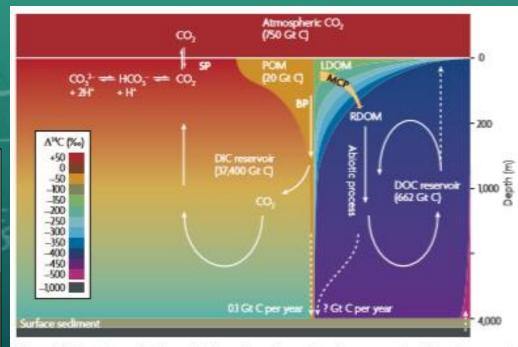


Figure 4 | The major mechanisms for formation of oceanic carbon reservoirs. The major oceanic carbon reservoirs and the mechanisms that control carbon cycling and storage in the ocean are shown. The dissolved organic carbon (DOC) reservoir is comparable to the atmospheric CO₂ inventory and is formed by recalcitrant dissolved organic matter (RDOM) accumulation, driven mainly by the microbial carbon pump (MCP). The biggest oceanic carbon reservoir is the dissolved inorganic carbon (DIC) pool, which is formed by biological pump (BP)-mediated transportation of organic carbon (in the form of particulate organic matter; POM) into the ocean interior and its subsequent remineralization, as well as by the solubility pump (SP) (which is driven by differences in CO₂ partial pressure). The SP has an impact on marine organisms and biogeochemical cycles, as it can lead to ocean acidification, MCP-driven carbon storage does not appreciably alter the buffering capacity of seawater and has no known negative impact on marine organisms. Background colours indicate the rough radiocarbon ages, according to the change in ³⁴C parts per thousand (Δ³⁴C%) values³⁵. Gt, gigatonne; LDOM, labile dissolved organic matter.