

Settling particles in the Western Pacific Warm Pool and its response to the ENSO cycle

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Sediment trap experiments were conducted in order to understand the characteristics of settling particles related to biological pump in the Western Pacific Warm Pool (WPWP). Mean total mass fluxes of 160.7 and 95.9 mg m⁻²day⁻¹ in the hemipelagic region (Sites 1 and 2 in the western WPWP), 13.2 and 25.7 mg m⁻²day⁻¹ in the oligotrophic ocean (Sites 4 and 10 in the central WPWP) and 40.1 mg m⁻²day⁻¹ in the equatorial upwelling region (Site 3 in the eastern WPWP) were observed. Compared with the previous results obtained from the eastern equatorial Pacific, low total mass fluxes with carbonate-dominated and opal-depleted compositions generally characterized the settling particles in the central equatorial Pacific (the central and eastern WPWP).