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**PP22A-0353**

**Middle Eocene Equatorial Pacific  
Paleoceanography: Insights From Bulk Sediment  
Geochemistry, ODP Site 1218**

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The deep equatorial Pacific was dominated by siliceous sedimentation from ~45 Ma to the Eocene-Oligocene boundary. Inspection of Paleogene sediments recovered during Ocean Drilling Program (ODP) Leg 199 and Deep Sea Drilling Program Leg 16 indicate several episodes of carbonate deposition during the Middle Eocene. The well-preserved and expanded sedimentary sequence recovered at ODP Site 1218 presents an opportunity to document the Middle Eocene paleoceanographic history of the equatorial Pacific, and to determine whether the occurrence of Middle Eocene carbonates in Chron C18 is coincident with a sequence of rapid paleoceanographic and climatic changes. Here we present high-resolution bulk sediment oxygen and carbon isotope records, carbonate, opal, and organic carbon accumulation data, and coarse sand fraction data for chalks and radiolarites spanning Chron C18 from ODP Site 1218. Stable isotope and % carbonate records exhibit large-amplitude oscillations corresponding to obliquity and eccentricity frequencies. In addition, a series of stepwise oxygen isotope excursions of 0.5 to 0.8 per mil at roughly 40.5, 40.4, and 40.3 Ma, occur in coincidence with large-scale drops in % carbonate. These data may record rapid CCD fluctuation associated with transient warming and cooling events and/or ephemeral polar ice sheets.

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