عنوان مقاله:
Three-dimensional times of the Persian Gulf

محل انتشار:
ششمین همایش علوم و فنون دریایی (سال: 1384)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:
A three-dimensional hydrodynamic model is employed in a fully prognostic mode to derive flushing times of the Persian Gulf-an evaporation-driven inverse estuary that is governed by import of surface water from the adjacent ocean and export of saline bottom gulf water through the Strait of Hormuz. During spring and summer, a cyclonic overturning circulation establishes along the full length of the Gulf. During autumn and winter, this circulation breaks up into mesoscale eddies, laterally stirring most of the Gulf's surface waters. As a result of this, 95% flushing times of surface waters are shortest (1-3 yr, increasing with distance from the Strait) along the Iranian coast, but are much longer (>5 yr) along the coasts of Kuwait and Saudi Arabia. Owing to density stratification introduced by the surface inflow of ocean water, flushing times of bottom waters are ~6 yr in most parts of the Gulf.

کلمات کلیدی: