



Figure 6.10. Comparison of the organic matter remaining as a function of depth in sediment traps (circles, from Martin *et al.*, 1987) with predictions using a Stokes settling model for several different cases. Particles were 60 % organic matter mass and 40 % mineral mass with an initial diameter of 125 μm . Densities were: $\rho_{\text{seawater}} = 1.0$, $\rho_{\text{OM}} = 1.1$, $\rho_{\text{min}} = 2.5 \text{ g cm}^{-3}$. Organic matter degradation rates were 0.87 d^{-1} and mineral dissolution rates were 0.044 d^{-1} . Sinking particulate organic matter can fit the measured values only if it contains mineral ballast and some of it is protected from degradation. From Michael Peterson, unpublished results.