



Fig. 1. Biogeochemical cycle of Si in the world ocean at steady state: A possible balance that is in reasonable agreement with the individual range of each flux (F) (see text). Gray arrows, fluxes of silicic acid (dissolved silica); black arrows, fluxes of particulate biogenic silica. All fluxes are in teramoles of Si per year. Abbreviations are as follows: River fluxes: gross inputs, $F_{R(gross)}$, and net inputs, $F_{R(net)}$; eolian inputs, F_A ; seafloor weathering inputs, F_W ; hydrothermal inputs, F_H ; net deposit of biogenic silica in estuaries, F_{est} ; net deposit of biogenic silica in coastal and abyssal sediments, F_B ; biogenic silica gross production, $F_{P(gross)}$; flux of silicic acid recycled in the surface reservoir, $F_{D(surface)}$; flux of biogenic silica exported toward the deep reservoir, F_E ; flux of silicic acid recycled in the deep reservoir, $F_{D(deep)}$; and at the sediment-water interface, $F_{D(benthic)}$; flux of biogenic silica that reaches the sediment-water interface, $F_{S(rain)}$; and flux of silicic acid transferred from the deep reservoir to the surface mixed layer, $F_{upw/ed}$.