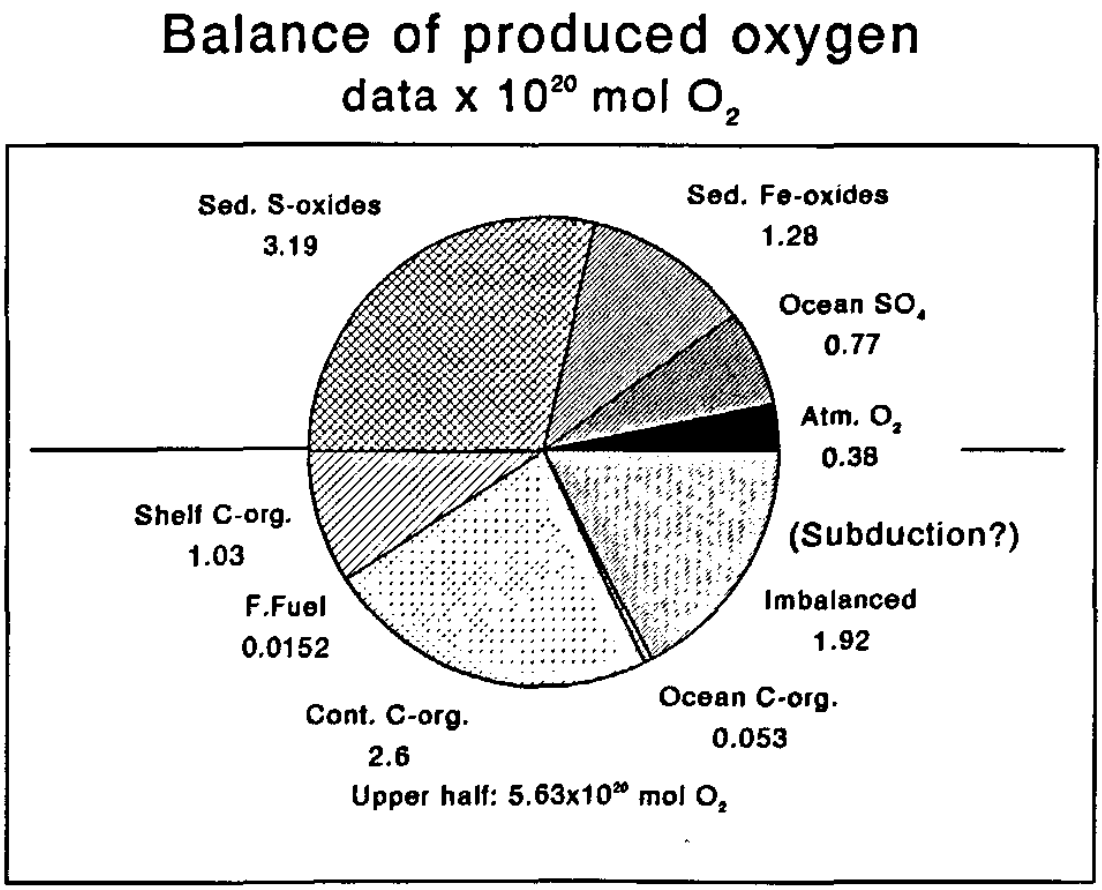

Figure 10

Pie chart of the balance of oxygen in the atmosphere and consumed in oxidizing processes over 1.8 × 10^9 years. Data, except for F. Fuel (Fig. 9), taken from Budyko et al. *(1987). It should be understood that the upper half of the figure concerns all net produced oxygen (difference between photosynthesis and respiration), while the lower part (expressed in oxygen equivalents) involves the fossil organic matter, including coal, thus produced. The imbalanced amount (1.92 × 10^{20} mol O_2) may be due to the difference between fossil carbon and oxidized sulphur and iron (in oxygen equivalents) in subducted ocean sediments beneath the continental plates (I. Foster Brown, Woods Hole Research Centre, USA, and Federal University Fluminense, Niterói, Brazil, personal communication), or due to inaccuracy of the data (see text). Calcium carbonate rocks and deposits, linked to the total global CO_2 reserve (formula 4 below), are not comprised in this figure.*