Principles of Environmental Biophysics

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1 Question

- The CO_2 density ρ_c=800 mg m^{-3},and the vertical velocity w = 0.5 m s^{-1}. Calculating the instant CO_2 flux through the top plane caused by upward motion of an air parcel from t=0s to t=1s.

2 Answer

- $f_c = \rho_c \cdot \overline{w} = 800\text{mg m}^{-3} \cdot (0.5 + 1)\text{m s}^{-1} = 1200 \text{ mg } m^{-2} \text{ s}^{-1}$