

Oppgave 1f, 2001(0)

Fraksjon hypokriske celler:

$$HF = \frac{S(\text{Luft})}{S(N_2)} = \frac{0,3 e^{-0,25D}}{6,0 e^{-0,25D}} = \underline{\underline{0,05}}$$

): 5% hypokriske celler.

Midlere fraksjon overlevende celler:

$$\text{Luft} \quad S = 0,3 e^{-0,25 \times 75} = \underline{2,16 \times 10^{-9}}$$

$$N_2 \quad S = 6,0 e^{-0,25 \times 75} = \underline{4,32 \times 10^{-8}}$$

Midlere antall overlevende celler:

$$\text{Luft:} \quad 2,16 \times 10^{-9} \times 2,5 \times 10^8 = \underline{0,54 \text{ celler}}$$

$$N_2 \quad 4,32 \times 10^{-8} \times 2,5 \times 10^8 = \underline{10,8 \text{ celler}}$$

Sannsynlighet for kurasjon:

$$P(0) = e^{-\bar{x}}$$

$$\text{Luft:} \quad P(0) = e^{-0,54} = \underline{0,58}$$

$$N_2: \quad P(0) = e^{-10,8} = \underline{\underline{2,0 \times 10^{-5}}}$$