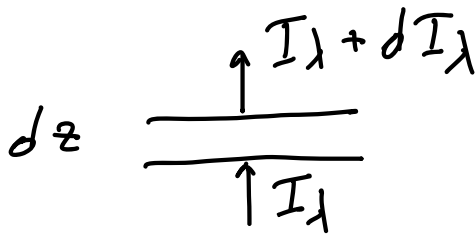


RAVNOTEŽA ZRAČENJA NE-SIVA ATMOSFERA

$\tau = 0, z = z_{\max}$



$$\Delta E^{abs} = \Delta E^{em}$$

$\tau = \infty, z = 0$

$$dE^{abs} = (\underbrace{I_{\lambda}}_{\substack{\uparrow \\ \text{ABS. INTENZITET}}} \cdot \chi_{\lambda} \cdot d\ell) \cdot \underbrace{d\Omega}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \cdot \underbrace{dA}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \cdot \underbrace{dt}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \cdot \underbrace{d\lambda}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \bigg| \int$$

$$dE^{em} = (\underbrace{j_{\lambda}}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} d\ell) \cdot d\Omega \cdot dA \cdot dt \cdot d\lambda \bigg| \int$$

$$\Delta E^{abs} = \underbrace{\Delta A \Delta t \Delta \ell}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \cdot \int_0^{\infty} \oint \chi_{\lambda} I_{\lambda} \sin \theta d\theta d\varphi d\lambda$$

$$\Delta E^{em} = \underbrace{\Delta A \Delta t \Delta \ell}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \cdot \int_0^{\infty} \oint \underbrace{j_{\lambda}}_{\substack{\downarrow \\ \text{EM. INTENZITET}}} \sin \theta d\theta d\varphi d\lambda$$

$$\text{U 1D } \oint \sin \theta d\theta d\varphi \Rightarrow 2\pi \int_{-1}^1 d\mu$$

$$S_{\lambda} = \left(\frac{j_{\lambda}}{\chi_{\lambda}} \right) \cdot \chi_{\lambda}$$

RZ (HE - SIVA)

$$\int_0^\infty \chi_\lambda \int_{-1}^1 I_\lambda d\mu d\lambda = \int_0^\infty \chi_\lambda \int_{-1}^1 S_\lambda d\mu d\lambda$$

I_λ \uparrow S_λ \uparrow I_λ

IZOTROPNO

$$\int_0^\infty \chi_\lambda I_\lambda d\lambda = \int_0^\infty \chi_\lambda S_\lambda d\lambda \quad RZ!$$

ZAŠTO RZ NIJE SAMO $I_\lambda = S_\lambda$?

JEDNAČINA STANJA U ZA

$T, p \rightarrow P$ → KAKO U PRAKSI OVO URADITI?

NPR. IMAMO GAS KOJI JE ČIST H, NA DATOJ T I P.
KAKO DA DOBIJEMO P?

KAKO DA DOBIJEMO P? (P)

$P = \frac{RT}{M}$ ← MOLARNA MASA

$P = n \cdot \bar{m}$ ← SREDNJA MASA ČESTICE

$n = n_H + n_e + n_+ + n_{H-}$

$P = n_H \cdot m_H + n_e \cdot m_e + n_+ \cdot m_H + n_{H-} \cdot m_H$

OVO ZAHTEVA DA REŠIMO SISTEM SAHINIH J-NA

JNA STANJA
IDEALNOG GASA:
 $P = nkT$
SVE ČESTICE

$\frac{n_H}{n_+ n_e} = f(T)$ ①

$\frac{n_H}{n_+ n_e} = f(T)$ ②

$n_e + n_{H-} = n_+$ ③

$n = n_e + n_H + n_+ + n_{H-}$ ④

KAKO DOBITI χ ?

$\chi = n_H \cdot \bar{v}_H + n_+ \cdot \bar{v}_+ + n_e \cdot \bar{v}_e + n_{H-} \cdot \bar{v}_{H-}$

ZA SVAKU ČESTICU: $\bar{v} = \bar{v}_{B-F} + \bar{v}_{F-F} + \bar{v}_{HEKE}$
TREBA NAM OVO GORE DRUGE...

$\chi = f(T, P)$ } PODRAZUMEVAJU ISTI
 $P = g(T, P)$ } PROCES