

Β ΛΥΚΕΙΟΥ ΑΛΓΕΒΡΑ

14.13 1)

$$\alpha) \text{ Είναι } A+B+\Gamma=\pi \Rightarrow B+\Gamma=\pi-A \Rightarrow \eta\mu(B+\Gamma)=\eta\mu(\pi-A) \xRightarrow{\eta\mu(\pi-\omega)=\eta\mu\omega} \eta\mu(B+\Gamma)=\eta\mu A$$

$$\beta) \text{ Είναι } A+B+\Gamma=\pi \Rightarrow A+B=\pi-\Gamma \Rightarrow \frac{A+B}{2}=\frac{\pi}{2}-\frac{\Gamma}{2} \Rightarrow \varepsilon\varphi \frac{A+B}{2}=\varepsilon\varphi\left(\frac{\pi}{2}-\frac{\Gamma}{2}\right) \xRightarrow{\varepsilon\varphi\left(\frac{\pi}{2}-\omega\right)=\sigma\varphi\omega}$$

$$\Rightarrow \varepsilon\varphi \frac{A+B}{2}=\sigma\varphi \frac{\Gamma}{2}$$

14.13 2)

$$\text{Είναι } A+B+\Gamma=\pi \Rightarrow A+B=\pi-\Gamma \Rightarrow \sigma\upsilon\nu(A+B)=\sigma\upsilon\nu(\pi-\Gamma) \Rightarrow \sigma\upsilon\nu(A+B)=-\sigma\upsilon\nu\Gamma$$

14.13 3)

$$\begin{aligned} \text{Είναι } A+B+\Gamma=\pi \Rightarrow B+\Gamma=\pi-A \Rightarrow \sigma\varphi(B+\Gamma) &= \sigma\varphi(\pi-A) \Rightarrow \\ \Rightarrow \sigma\varphi(B+\Gamma) &= -\sigma\varphi A \Rightarrow \sigma\varphi A + \sigma\varphi(B+\Gamma) = 0 \end{aligned}$$

14.13 4)

$$\begin{aligned} \text{Είναι } A+B+\Gamma=\pi \Rightarrow A+\Gamma=\pi-B \Rightarrow \frac{A+\Gamma}{2} &= \frac{\pi}{2}-\frac{B}{2} \Rightarrow \\ \Rightarrow \eta\mu\left(\frac{A+\Gamma}{2}\right) &= \eta\mu\left(\frac{\pi}{2}-\frac{B}{2}\right) \Rightarrow \eta\mu\left(\frac{A+\Gamma}{2}\right) = \sigma\upsilon\nu\left(\frac{B}{2}\right) \end{aligned}$$

14.13 5)

$$\begin{aligned} \text{Είναι } A+B+\Gamma=\pi \Rightarrow B+\Gamma=\pi-A \Rightarrow \frac{B+\Gamma}{2} &= \frac{\pi}{2}-\frac{A}{2} \Rightarrow \\ \Rightarrow \sigma\varphi\left(\frac{B+\Gamma}{2}\right) &= \sigma\varphi\left(\frac{\pi}{2}-\frac{A}{2}\right) \Rightarrow \sigma\varphi\left(\frac{B+\Gamma}{2}\right) = \varepsilon\varphi \frac{A}{2} \end{aligned}$$

14.13 6)

$$\begin{aligned} \text{Είναι } A+B+\Gamma=\pi \Rightarrow A+B=\pi-\Gamma \Rightarrow 2A+2B &= 2\pi-2\Gamma \Rightarrow \\ \Rightarrow \varepsilon\varphi(2A+2B) &= \varepsilon\varphi(2\pi-2\Gamma) \Rightarrow \varepsilon\varphi(2A+2B) = -\varepsilon\varphi 2\Gamma \Rightarrow \\ \Rightarrow \varepsilon\varphi(2A+2B) + \varepsilon\varphi(2\Gamma) &= 0 \end{aligned}$$

14.13 7)

$$\begin{aligned} \text{Είναι } A+B+\Gamma=\pi \Rightarrow A+B=\pi-\Gamma \Rightarrow 2A+2B &= 2\pi-2\Gamma \Rightarrow \\ \Rightarrow \sigma\upsilon\nu(2A+2B) &= \sigma\upsilon\nu(2\pi-2\Gamma) \Rightarrow \sigma\upsilon\nu(2A+2B) = \sigma\upsilon\nu 2\Gamma \end{aligned}$$

14.13 8)

$$\begin{aligned} \text{Είναι } A+B+\Gamma=\pi \Rightarrow 3A+3B+3\Gamma &= 3\pi \Rightarrow 3A+3B = 3\pi-3\Gamma \Rightarrow \\ \Rightarrow \varepsilon\varphi(3A+3B) &= \varepsilon\varphi(3\pi-3\Gamma) \Rightarrow \varepsilon\varphi(3A+3B) = \varepsilon\varphi(2\pi+\pi-3\Gamma) \Rightarrow \\ \Rightarrow \varepsilon\varphi(3A+3B) &= \varepsilon\varphi(\pi-3\Gamma) \Rightarrow \varepsilon\varphi(3A+3B) = -\varepsilon\varphi 3\Gamma \Rightarrow \\ \Rightarrow \varepsilon\varphi(3A+3B) + \varepsilon\varphi 3\Gamma &= 0 \end{aligned}$$

14.13 9)

Είναι $A + B + \Gamma = \pi \Rightarrow A + B = \pi - \Gamma \Rightarrow \frac{3A + 3B}{2} = \frac{3\pi}{2} - \frac{3\Gamma}{2} \Rightarrow$

$$\Rightarrow \sigma\varphi\left(\frac{3A + 3B}{2}\right) = \sigma\varphi\left(\frac{3\pi}{2} - \frac{3\Gamma}{2}\right) \Rightarrow \sigma\varphi\left(\frac{3A + 3B}{2}\right) = \varepsilon\varphi\frac{3\Gamma}{2}$$