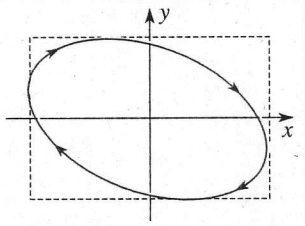
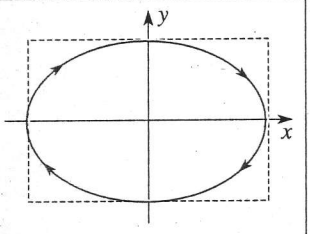
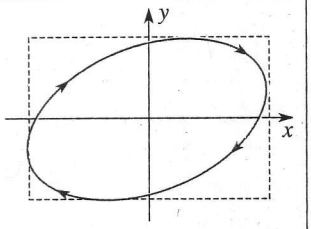
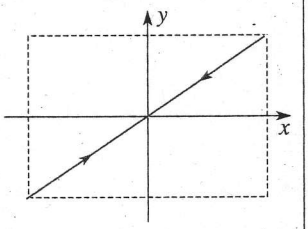
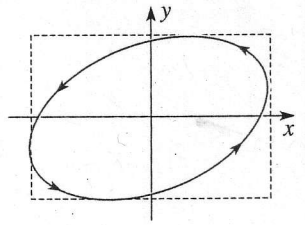
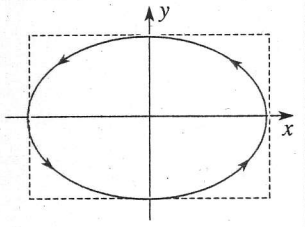
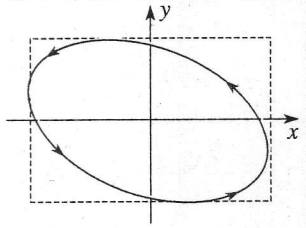
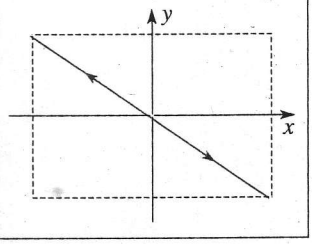
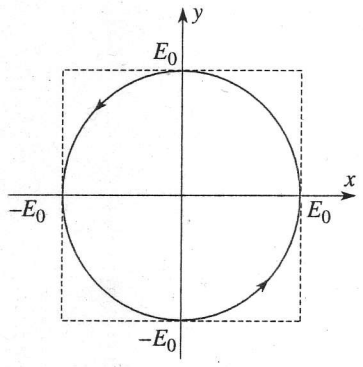
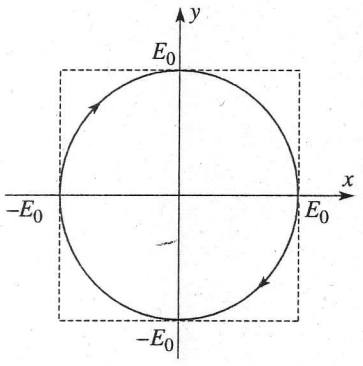
POLARISATION D'UNE ONDE ELECTROMAGNÉTIQUE TRANSVERSE

$$\vec{E} = \begin{vmatrix} 0 \\ E_{0y}\cos(\omega t - kx) \\ E_{0z}\cos(\omega t - kx + \varphi) \end{vmatrix}$$

polarisations elliptiques droites (hélicité négative)			polarisations rectilignes
$\frac{\pi}{2} < \varphi < \pi$	$\varphi = +\frac{\pi}{2}$	$0 < \varphi < \frac{\pi}{2}$	$\varphi = 0$
			
polarisations elliptiques gauches (hélicité positive)			**polarisations rectilignes**
$-\frac{\pi}{2} < \varphi < 0$	$\varphi = -\frac{\pi}{2}$	$-\pi < \varphi < -\frac{\pi}{2}$	$\varphi = \pm\pi$
			

Doc. 9. *Polarisations elliptiques et rectilignes.*

polarisations circulaires	
circulaire gauche $\varphi = -\frac{\pi}{2}$	circulaire droite $\varphi = +\frac{\pi}{2}$
	
notation réelle $\begin{vmatrix} E_x = E_0 \cos(\omega t) \\ E_y = E_0 \sin(\omega t) \end{vmatrix}$	notation réelle $\begin{vmatrix} E_x = E_0 \cos(\omega t) \\ E_y = -E_0 \sin(\omega t) \end{vmatrix}$
notation complexe $\begin{vmatrix} \underline{E}_x = E_0 e^{j\omega t} \\ \underline{E}_y = -j\underline{E}_x = -jE_0 e^{j\omega t} \end{vmatrix}$	notation complexe $\begin{vmatrix} \underline{E}_x = E_0 e^{j\omega t} \\ \underline{E}_y = j\underline{E}_x = jE_0 e^{j\omega t} \end{vmatrix}$

Doc. 10. *Polarisations circulaires* ($E_{0x} = E_{0y} = E_0$).