Answer on Question #48508-Physics-Electromagnetism

A coil with area $A = 2\ cm^2 = 2 \cdot 10^{-4} m^2$ is parallel to a magnetic flux density equal $B = 0.05$ tesla what is the number of the magnetic flux lines of the coil?

Solution

Number of field lines through a coil is called magnetic flux.

The magnetic flux is

$$\Phi = BA = 2 \cdot 10^{-4} m^2 \cdot 0.05\ \text{T} \cdot \cos(90^o) = 0\ \text{Wb}.$$

Answer: 0 Wb.