

Magnetic Dipole Moment of Current Loop



N : number of turns

I : current through wire

A : area of loop

\hat{n} : unit vector perpendicular to plane of loop

$\vec{\mu} = NIA\hat{n}$: magnetic dipole moment

\vec{B} : magnetic field

$\vec{\tau} = \vec{\mu} \times \vec{B}$: torque acting on current loop

