2. Дано: $r = 5.28 \times 10^{-8}$ м

$p_m - ?$

$m\frac{v^2}{r} = eE$ ①

$E = \frac{e}{4\pi r^2 \varepsilon_0}$ ②

$p_m = I\pi r^2$ ③

$I = \frac{e}{T}$ ④

$T = \frac{2\pi r}{v}$ ⑤

①, ②: $v = \sqrt{\frac{e^2}{4\pi\varepsilon_0 m r}}$ ⑥

④ и ⑥: $I = \frac{e^2}{4\pi r^3}\sqrt{\frac{r}{\pi\varepsilon_0 m}}$ ⑦

$p_m = \frac{e^2}{4}\sqrt{\frac{r}{\pi\varepsilon_0 m}} \approx 9.3 \times 10^{-24}$ А·м²

3. Дано: $\mu = 1.0176$

$\frac{B'}{B} - ?$

$B = \mu_0 H$

$B' = \mu_0 J$, где $J = \chi H$

$\chi = \mu - 1$

$B' = \mu_0(\mu - 1)H$

$\frac{B'}{B} = \frac{\mu_0(\mu-1)H}{\mu_0 \mu H} = \frac{\mu - 1}{\mu}$

≈ 0.0173