20. We let $\Delta E = 2\mu_B B_{\text{eff}}$ (based on Fig. 41-10 and Eq. 41-18) and solve for B_{eff}:

$$B_{\text{eff}} = \frac{\Delta E}{2\mu_B} = \frac{hc}{2\lambda\mu_B} = \frac{1240\,\text{nm}\cdot\text{eV}}{2(21\times10^{-7}\,\text{nm})(5.788\times10^{-5}\,\text{eV/T})} = 51\ \text{mT}\ .$$