

$$\rho = \frac{nA_C}{\left(\frac{4R}{\sqrt{3}}\right)^3 N_A}$$

$$= \frac{(2 \text{ atoms/unit cell})(91.6 \text{ g/mol})}{\left\{ \left[\frac{(4)(1.37 \times 10^{-8} \text{ cm})}{\sqrt{3}} \right]^3 / (\text{unit cell}) \right\} (6.023 \times 10^{23} \text{ atoms/mol})}$$

$$= 9.60 \text{ g/cm}^3$$

Therefore, its crystal structure is BCC.