4-10. $r_d = \dfrac{kq_\alpha Q}{(1/2)m_\alpha v^2} = \dfrac{ke^2 \cdot 2 \cdot 79}{E_{k\alpha}}$ (Equation 4-11)

$$E_{k\alpha} = \frac{(1.44 MeV \cdot fm)(2)(13)}{4\, fm} = 9.4 MeV$$