(10.9) ^{12}C atoms are used to irradiate ^{239}Pu to produce an isotope of berkelium. What is the Coulomb barrier height?

$A_1 := 12$ $Z_1 := 6$ $A_2 := 239$ $Z_2 := 94$

$$E_{cbmin} := 1.109 \cdot \left(A_1 + A_2\right) \cdot \frac{Z_1 \cdot Z_2}{A_2 \cdot \left(A_1^{\frac{1}{3}} + A_2^{\frac{1}{3}}\right)}$$ Eqn. (10.15)

$E_{cbmin} = 77.323$ MeV