

39 The charge-to-mass ratio r of a particle is given by the equation shown.

$$r = \frac{\text{charge on particle}}{\text{mass of particle}}$$

The value of r is determined for an α -particle, a β^+ particle and a proton p .

Which list shows the particles in order of increasing magnitude of r from left to right?

A $\alpha \rightarrow \beta^+ \rightarrow p$

B $\alpha \rightarrow p \rightarrow \beta^+$

C $p \rightarrow \alpha \rightarrow \beta^+$

D $p \rightarrow \beta^+ \rightarrow \alpha$