

Answer on Question #61646-Physics-Other

If a heavier isotope of chlorine is used but one with the same charge, would the radius of curvature be larger or smaller? Explain your reasoning by referring to the equation you used to determine the mass.

Solution

The radius of curvature is given by the formula:

$$r = \frac{mv}{qB} \sim m.$$

So, the radius of curvature would be larger.

Answer: larger.

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