

## Answer on Question #86135 - Chemistry - General Chemistry

Question:

How many milliliters of an aqueous solution of 0.126 M iron(II) nitrate is needed to obtain 16.3 grams of the salt?

\_\_\_\_\_ mL

**Solution:**

$$M(\text{Fe}(\text{NO}_3)_2) = 180 \text{ g/mol};$$

$$n(\text{Fe}(\text{NO}_3)_2) = 16.3/180 = 0.09 \text{ mol};$$

$$c = n/V;$$

$$V = n/c = 0.09/0.126 = 0.7143 = 714.3 \text{ mL}.$$

**Answer:** 714.3 mL.

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