

Answer on Question #52396 - Chemistry – Other

Question

41.0 g of barium hydroxide, $\text{Ba}(\text{OH})_2$ is dissolved in water. The final volume of the solution is 2.00 L. What is the molarity of the solution? The molar mass of $\text{Ba}(\text{OH})_2$ is 171.3 g/mol.

Answer:

Molarity (molar concentration) of the solution is:

$$C = \frac{n}{V} = \frac{m}{M \cdot V}$$
$$C = \frac{m}{M \cdot V} = \frac{41.0}{171.3 \cdot 2.00} = 0.12 \text{ mol/L}$$

Answer: 0.12 M