

Answer on Question #77970, Chemistry / General Chemistry

Question:

Calculate the molar concentration of chloride ions when 15 g of barium chloride, BaCl_2 , is dissolved in 220 mL of water.

Solution:

Amount of BaCl_2 : $15 / 208.23 = 0.072$ mol

Each molecule contains 2 atoms of Cl, so:

Amount of chloride ions: $0.072 \cdot 2 = 0.144$ mol

Molar concentration: $0.144 / 0.220 = 0.6545$ mol/L

Answer:

0.6545 mol/L