Answer on Question#59127 – Chemistry – Organic chemistry

Question: How many grams of CaCl2 are present in 20.0 mL of a 0.490 M solution.

Solution:

$$n(CaCl_2) = V(CaCl_2) \cdot C_M(CaCl_2) = \frac{20.0\ L \cdot 0.490\frac{mol}{L}}{1000} = 0.0098\ mol$$

$$m(CaCl_2) = n(CaCl_2) \cdot M(CaCl_2) = 0.0098\ mol \cdot 111\ \frac{g}{mol} = 1.09g$$

Answer: 1.09 g $CaCl_2$