

How many mL of 4.12 M KCL must be diluted to make 825 mL of a .756 M KCL solution?

Solution:

The number of mole of KCl in obtained solution have be $n = C_2 \times V$, where $C_2 = 0.756$ mole/L and $V = 825$ mL = 0.825 L, than $n = 0.756 \times 0.825 = 0.6237$ (mole). Therefore, that amount of KCl has $V = \frac{n}{C_1}$ of initial solution, where $C_1 = 4.12$ mole/L, then $V = \frac{0.6237}{4.12} = 0.151$ L = 151 mL

Answer: 151 mL.

Answer provided by www.AssignmentExpert.com