

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

#Che Salsa



My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

Milwaukee HS • AP Chemistry

Name _____
Period _____ Date ____/____/____

5 • Reactions in Aqueous Solution

Notes:
Concentration can be measured in terms of molarity M .
Molarity = $\frac{\text{moles of solute}}{\text{Liters of solution}}$ often $\frac{\text{moles of solute}}{\text{Liters of solution}} \times (\text{Liters of solution})$

Dilution problems can be solved with the formula: $V_1M_1 = V_2M_2$
Molarity can be used as a conversion factor to convert moles to Liters of solutions.

Solution Concentration
60. If 0.75 g of Na_2CO_3 is dissolved in enough water to make 250 mL of solution, what is the molarity of the sodium carbonate?

62. What is the mass, in grams, of solute in 250 mL of a 0.0125 M solution of KMnO_4 ?

64. What volume of 0.125 M NaOH in milliliters contains 2.10 g of NaOH ?

Dilution Problems
66. If 4.00 mL of 0.250 M CaCl_2 is diluted to 10.0 mL with pure water, what is the molarity of copper(II) sulfate in the diluted solution?

Ion Concentrations
70. For each solution, identify the ions that exist in aqueous solution, & specify the concentration of each.
a) 0.25 M NH_4NO_3
b) 0.50 M HNO_3
c) 0.25 M Na_2CO_3
d) 0.0025 M KClO_4

MOLARITY
Stoichiometry of Reactions in Solution
72. What volume of 0.125 M HNO_3 in milliliters is required to react completely with 1.30 g of Ba(OH)_2 ?
 $2 \text{HNO}_3(aq) + \text{Ba(OH)}_2(aq) \rightarrow \text{Ba(NO}_3)_2(aq) + 2 \text{H}_2\text{O}(l)$

76. In the photographic developing process, silver bromide dissolved by adding sodium thiosulfate:
 $\text{AgBr}(s) + 2 \text{Na}_2\text{S}_2\text{O}_3(aq) \rightarrow \text{Na}_4\text{Ag}_2\text{S}_2\text{O}_6(aq) + 2 \text{NaBr}(aq)$
If you want to dissolve 0.250 g of AgBr , what volume of 0.100 M $\text{Na}_2\text{S}_2\text{O}_3$ in milliliters should be used?

Titration
82. What volume of 0.812 M HCl in milliliters is required to titrate 1.33 g of NaOH to the equivalence point?
 $\text{NaOH}(aq) + \text{HCl}(aq) \rightarrow \text{NaCl}(aq) + \text{H}_2\text{O}(l)$

84. What volume of 0.955 M HCl in milliliters is needed to titrate 2.15 g of Na_2CO_3 to the equivalence point?
 $\text{Na}_2\text{CO}_3(aq) + 2 \text{HCl}(aq) \rightarrow 2 \text{NaCl}(aq) + \text{CO}_2(g) + \text{H}_2\text{O}(l)$

[Download PDF version of :](#)
Reactions In Aqueous Solutions Worksheet Answers