

Tonight HW: finish lab sheet
Thursday quiz

Friday - no school

Purpose:

Use ACID in a lab to generate gas.

WARMUP copy and solve

"If 243 mL of gas is at 44°C, what will its volume be at STP?"

$$44^{\circ}\text{C} + 273 = 317 \text{ kelvins}$$

$$0^{\circ}\text{C} + 273 = 273 \text{ kelvins}$$

$$\text{Lonely number} \times \left(\frac{\quad}{\quad} \right) = \text{answer}$$




because cooling
will shrink ~~VOLUME~~
put small # on top

$$243\text{mL} \times \left(\frac{273\text{K}}{317\text{K}} \right) = 209\text{mL}$$

How do we show something dissolving?
 CAE MIS 777 / 414 / 603 / 604 / 605 / 606 / 607 / 608 / 609 / 610 / 611 / 612 / 613 / 614 / 615 / 616 / 617 / 618 / 619 / 620 / 621 / 622 / 623 / 624 / 625 / 626 / 627 / 628 / 629 / 630 / 631 / 632 / 633 / 634 / 635 / 636 / 637 / 638 / 639 / 640 / 641 / 642 / 643 / 644 / 645 / 646 / 647 / 648 / 649 / 650 / 651 / 652 / 653 / 654 / 655 / 656 / 657 / 658 / 659 / 660 / 661 / 662 / 663 / 664 / 665 / 666 / 667 / 668 / 669 / 670 / 671 / 672 / 673 / 674 / 675 / 676 / 677 / 678 / 679 / 680 / 681 / 682 / 683 / 684 / 685 / 686 / 687 / 688 / 689 / 690 / 691 / 692 / 693 / 694 / 695 / 696 / 697 / 698 / 699 / 700 / 701 / 702 / 703 / 704 / 705 / 706 / 707 / 708 / 709 / 710 / 711 / 712 / 713 / 714 / 715 / 716 / 717 / 718 / 719 / 720 / 721 / 722 / 723 / 724 / 725 / 726 / 727 / 728 / 729 / 730 / 731 / 732 / 733 / 734 / 735 / 736 / 737 / 738 / 739 / 740 / 741 / 742 / 743 / 744 / 745 / 746 / 747 / 748 / 749 / 750 / 751 / 752 / 753 / 754 / 755 / 756 / 757 / 758 / 759 / 760 / 761 / 762 / 763 / 764 / 765 / 766 / 767 / 768 / 769 / 770 / 771 / 772 / 773 / 774 / 775 / 776 / 777 / 778 / 779 / 780 / 781 / 782 / 783 / 784 / 785 / 786 / 787 / 788 / 789 / 790 / 791 / 792 / 793 / 794 / 795 / 796 / 797 / 798 / 799 / 800 / 801 / 802 / 803 / 804 / 805 / 806 / 807 / 808 / 809 / 810 / 811 / 812 / 813 / 814 / 815 / 816 / 817 / 818 / 819 / 820 / 821 / 822 / 823 / 824 / 825 / 826 / 827 / 828 / 829 / 830 / 831 / 832 / 833 / 834 / 835 / 836 / 837 / 838 / 839 / 840 / 841 / 842 / 843 / 844 / 845 / 846 / 847 / 848 / 849 / 850 / 851 / 852 / 853 / 854 / 855 / 856 / 857 / 858 / 859 / 860 / 861 / 862 / 863 / 864 / 865 / 866 / 867 / 868 / 869 / 870 / 871 / 872 / 873 / 874 / 875 / 876 / 877 / 878 / 879 / 880 / 881 / 882 / 883 / 884 / 885 / 886 / 887 / 888 / 889 / 890 / 891 / 892 / 893 / 894 / 895 / 896 / 897 / 898 / 899 / 900 / 901 / 902 / 903 / 904 / 905 / 906 / 907 / 908 / 909 / 910 / 911 / 912 / 913 / 914 / 915 / 916 / 917 / 918 / 919 / 920 / 921 / 922 / 923 / 924 / 925 / 926 / 927 / 928 / 929 / 930 / 931 / 932 / 933 / 934 / 935 / 936 / 937 / 938 / 939 / 940 / 941 / 942 / 943 / 944 / 945 / 946 / 947 / 948 / 949 / 950 / 951 / 952 / 953 / 954 / 955 / 956 / 957 / 958 / 959 / 960 / 961 / 962 / 963 / 964 / 965 / 966 / 967 / 968 / 969 / 970 / 971 / 972 / 973 / 974 / 975 / 976 / 977 / 978 / 979 / 980 / 981 / 982 / 983 / 984 / 985 / 986 / 987 / 988 / 989 / 990 / 991 / 992 / 993 / 994 / 995 / 996 / 997 / 998 / 999 / 1000

Stop in for help every day at lunch and Tues, Weds & Thurs after school!
 After-hours question? Email me at home: eogensest@madison.k12.wi.us

ANSWERS



Name _____
 Period _____

1. From the textbook, copy the diagrams from page 483 in good detail, including the caption:

caption

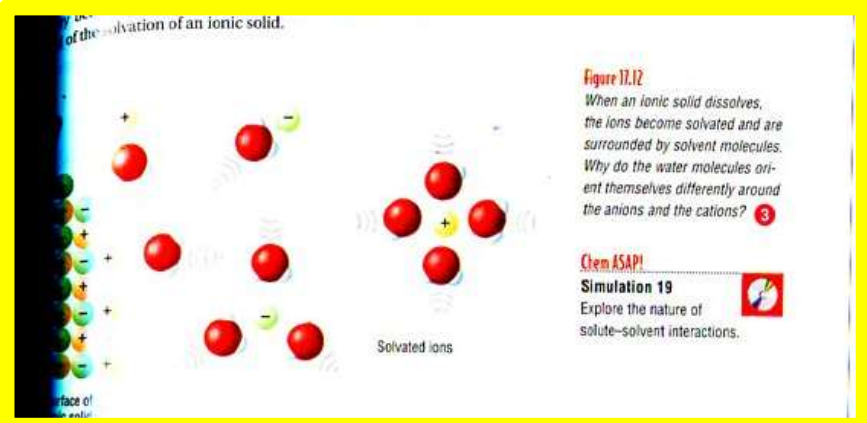


Figure 17.12
 When an ionic solid dissolves, the ions become solvated and are surrounded by solvent molecules. Why do the water molecules orient themselves differently around the anions and the cations? 3

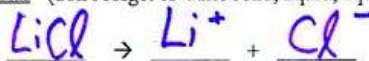
Chem ASAP!
Simulation 19
 Explore the nature of solute-solvent interactions.

For each of the following, Underline compounds that are molecular, circle compounds that are ionic

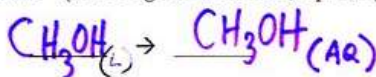


For each substance below write a dissociation equation (something like "A_(s) -> B_(aq) + C_(aq)") to describe that substance dissolving:

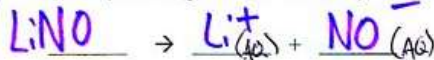
(a) LiCl This is ~~ionic~~ molecular (don't forget to write solid, liquid, aqueous next to each symbol)



(b) CH₃OH(l) This is ionic ~~ionic~~ molecular (don't forget to write solid, liquid, aqueous next to each symbol)



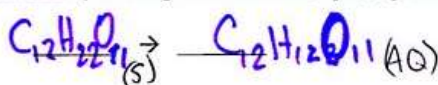
(c) LiNO This is ~~ionic~~ molecular (don't forget to write solid, liquid, aqueous next to each symbol)



(d) NaBr(s) This is ~~ionic~~ molecular (don't forget to write solid, liquid, aqueous next to each symbol)



(e) C₁₂H₂₂O_{11(s)} This is ionic ~~ionic~~ molecular (don't forget to write solid, liquid, aqueous next to each symbol)



4. What is a solution?

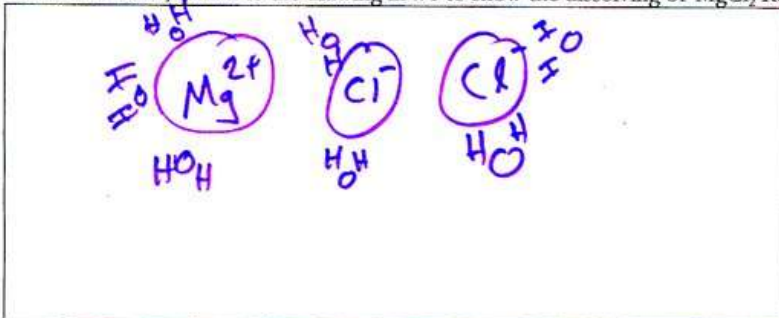
5. Write the correct formula that each compound would have. Remember, the total charge of any substance is zero charge

	O^{2-}	OH^-	PO_4^{3-}
Mg^{2+}	MgO	$Mg(OH)_2$	$Mg_3(PO_4)_2$
K^+	K_2O	KOH	K_3PO_4
NH_4^+	$(NH_4)_2O$	NH_4OH	$(NH_4)_3PO_4$
Iron(III) ion {what does the III mean?}	Fe_2O_3	$Fe(OH)_3$	$FePO_4$

6. For each description below, fill in one row on the table below

A single Cation (show charge)	A single Anion (show charge)	Formula
Mg^{2+}	Cl^-	$MgCl_2$
H^+	PO_4^{3-}	H_3PO_4 (a semi-harmless acid found in cola)
Al^{3+}	O^{2-}	Al_2O_3 (‘rusty aluminum’, a major component of clay)

7. Draw a cartoon, similar to the drawing in #1 to show the dissolving of $MgCl_2$. Read the hints below:



If the cation formed is Mg^{2+} and the anion is Cl^- , $MgCl_2$ should create three particles when it dissolves. In your drawing above, make the positive ions say Mg^{2+} and make each negative ion say Cl^- .

Circle one choice: Compared to the number of Mg^{2+} cations formed, the number of Cl^- anions formed should be (half as many / the same quantity / twice as many)

Eevy Fernanda 1
Amaya Aaliyah 2
Ryan Clare 3
Keshawn Jainaba 4
Joseph Ethan 5
Trinity Alberto 6
Alexandra Larry 7
Chad Elvin 8
Quinn Wa 9
Ian Ashley 10 MERVEM
Tenzin Shane 11
Jiselle Emerson 12
~~Mervem 13~~
Ashley Keshawn 13