

Chem 120 / Dr. Rusay
Laboratory Instructions

1. *Using the Scantron that was provided, complete the 20 questions on Global Warming and turn in.*

2. *Lab & Webshop: Greenhouse Gases I (Dr. R's Lab Manual: pp. 13-20) See:*
<http://chemconnections.org/general/chem120/Atmos-gases/>

Find the assigned lab area for your group: A, B, C, D, E, F, G. Write the names of all group members on one copy of the Webshop form. Discuss and solve problems 1, 2, and 3 plus the one assigned to your group (4, 5, 6, or 7), which follows your group: eg. 4, which is Problem #4. Due beginning of next lab.

3. *Electrolytes and Ionic Reactions pp. 14-19 DVC Lab Manual*

Organize your group's individual tasks to complete all 4 parts of the experiment. Divide your group into teams, perform the procedures, record the results.

Step 1: Complete Part 1 pg.15. Use the opposite side of this page for the results. Turn in one copy with everyone's name at the end of today's lab.

Use pages 17-19 for the remaining report. 1 set per group with everyone's name. (Your lab notebook will not be necessary for this experiment.) These pages are due 1 week from today.

Step 2: Write the **molecular formulas** of each of **the reactants only** followed by an arrow for Parts 2, 3 and 4, pp.17-19.

Step 3: Complete experimental parts 2, and 3. Write **molecular formulas** following the arrows for the **products** in the chemical equations, which accurately reflect your observations, that is, observing bubbles, a gas (g), observing a precipitate, an insoluble salt (s) [Consult pg. 100 Dr. R's Lab Manual & Appendix C, pg. 93, DVC Lab Manual for solubilities.], detecting heat in the formation of water (l) such as in a neutralization reaction. Write **Net Ionic Equations** (NIE) for each of the observed reactions. [Refer to Appendix D: pp.94-97 DVC Lab Manual.]

Step 4: Complete experimental part 4. Where no reaction is observed, write **NR** for the product following the arrow. As in Parts 2 and 3, write **molecular formulas** following the arrows for the **products** in the chemical equations, which accurately reflect your observations. Write **Net Ionic Equations** for each of the observed reactions only.

Step 4: Turn in one set of the completed pages with everyone's name included for your group at the end of the next lab period. **Also, each group member must have pp. 17-19 completed in their own DVC Lab Manual for pages not turned in.**