

Important Assignment

Before coming to the next Lecture, be sure to read “**Naming of Coordination Compounds**”, which is one of the related tutorials that can be accessed from Tutorial #1.

Help session 5-6 pm today in LS250

Announcements

Pick up the graded Exp 4 reports in LS136. Check all the recorded grades.

Midterm Exam is this Wednesday (10/14), 6:30 pm.

Go to Exam Info page for: **Exam Rules**

Exam Room Assignment

Exams of Fall 2008

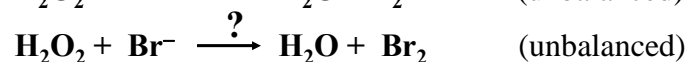
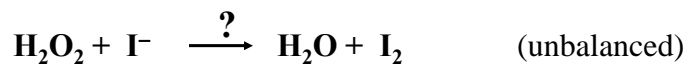
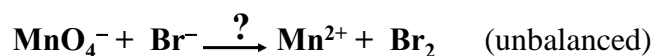
Pick up graded exams on Thursday in LS101, 2 pm – 3 pm.
Unclaimed exams will be on the racks of LS 136.

Re-grade requests of midterm exam must be submitted to the blue locker before 5 pm of next Monday (10/19).

Midterm grade is only an estimated grade (no +/-). It will be posted on webSTAC.

Recap of Exp 3

C. Relative Oxidizing and Reducing Strengths



Midterm Exam includes

Experiments 1 → 4 (80%)

All materials covered in lectures and lab manual

Chemistry background pertaining to the experiments

Understanding of experimental procedures and observations

Laboratory skills and equipment involved

Laboratory Safety

Lecture demos

Tutorials 1 → 2 (20%)

Reading assignments

Homework assignments

The only information
provided in the exam
is a periodic chart of
elements.

Exp 1 --- Periodic Properties and Check-in

Laboratory Safety Rules

Lab equipment/ Laboratory glassware/ usage of fumehood

Ground state electron configuration/ valence electrons

Periodic trends of Z_{eff} , atomic size, electronegativity

Relative sizes of ions/molecules

Metals versus nonmetals *Semiconductors (doping)*

Simple model of chemical bonding *Band theory of bonding*

Conductivity of solids/ solutions

Stoichiometric calculations involving mole, molarity, and dilution

Exp 2 --- Ion Exchange Reactions

The nature of ion exchange reactions

To predict if ion exchange reaction would occur

Solubility Guidelines

To write balanced net ionic equations for ion exchange reactions/ from a molecular equation

The flame test

To know the pH, flame color, and color of solutions/ppt.

Utilize given information to identify an unknown sample

The visible spectrum and calculation of E_{photon} $E = h\nu$

Exp 3 & 4 --- Redox Reactions

To assign oxidation numbers

To identify redox reactions/ oxidizing agents/ reducing agents

To write balanced oxidation/reduction half-reaction equations

To write balanced overall redox reaction equations

To predict products of limited types of redox reactions

To compare strength of oxidizing/reducing agents

Understand the observations and the nature of redox reactions involved Experiments 3 & 4

Stoichiometric Calculations

(Moles of reactants and products, Limiting agent Problems)

There will be questions required background of more than one experiment !!

e. g., Unknown sample identification

Can you write balanced equations to illustrate a reaction described on paper?

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No lab this week!!

Good luck in the exam!!