MEMORANDUM Chemistry Department

To: Bill, Nellie, Melissa, Carolyn, Randy

From: John I. Gelder

Date: February 18, 2001

Re: Grading PS#4

STAFF MEETINGS...FRIDAYS, 12:30 p.m. PS117.

The answers to PS #4 are attached. After reviewing the problem sets I have decided we should grade problems PS4.5, PS4.6, and PS4.10b for 3 points. The maximum possible on the problem set is twelve points. The remaining three points are awarded on an all or nothing basis for completion of the remaining problems. Note: If the word 'Late' is written at the top of the Problem Set grade as usual but deduct 3 points from their total. Note: 'Late' means the student found me at the end of class or immediately after class. I will not accept Problem Sets more than a few minutes after class is over, and such cases will have a minimum of 3 points deducted from their score.

Please return the graded problem sets to your students in laboratory next week. Be sure to record the scores for each student.

Copies of the answers and the grading memo are on the WEB.

Grading the Review Problem Set

PS4.5 **3 points** 1 point for calculating the volume of the unit cell (do not worry if no units are included since the volume is an intermediate calculation). 1 point for the calculating the edge length correctly (with the units of length), and 1 point for the atomic radius (with the units of length). If the volume calculation is incorrect, but the subsequent edge length and atomic radius calculation are consistent, award two of the three points..R/W

PS4.6 **3 points** 1 point each for part a, b and c. The radius ratio should be shown with the calculated ratio; the type of structure name should be included, and most important a brief description of the anion and cation locations should be included. This latter information may be missing from all three answers. If that is the case, and the remaining information is there AND correct deduct only 1 point.

PS4.10b **3 points**. 1 point each for part i, ii and iii. R/W. I expect the students to clearly indicate all of the C-H bonds. I would prefer the condensed structures not be accepted, but I will yield if you gave your students different instructions in laboratory. I told students I wanted complete Lewis structures in such a question. Check that ii has the correct *trans* configuration.

3 points For attempting the remaining 7 problems. Remember each problem must have an answer, an attempt. If the student writes nonsense for any of the other answers deduct the 3 points.