

**Report Instructions for the Preparation of SalenH<sub>2</sub>**  
**Inorganic Chemistry 1, Spring 2004**

1. Calculate the percent yield of salenH<sub>2</sub>.
2. Assign all of the signals in the <sup>1</sup>H NMR spectrum.

Multiplets in the <sup>1</sup>H spectrum may be assigned as a group.

Ignore the small singlet that is due to CHCl<sub>3</sub>.

The two singlets in the low-field region of the spectrum have the following linewidths (the linewidth is the width of the signal at half-height): 4.16 Hz (δ 13.2), 2.17 (δ 8.34). This information, and the fact that <sup>14</sup>N is quadrupolar (spin = 1), should assist you in making the proper assignments.

*Extra Credit*

Analyze the splitting patterns in the δ 6.6 - 7.6 region, and report all of the coupling constants.