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LABORATORY REPORT
SOLUBILITY

INTRODUCTORY SUMMARY

As you know, solubility is the maximum amount of a solute that can be dissolved in a solvent. So, I want to calculate the solubility.

LAB MATERIALS

2 pie pans,
Graduated cylinder,
Hot plate,
Thermometer,
2 test tubes,
Test tube rack,
Balance,
NaCl,
Distilled water

LAB PROCEDURE

1. Pour tap water into the beaker so it is about 1/3 full and heat one test tube until it is around 55-60° C
2. Find the mass of 2 pie pans labeled A and B.
3. Add 5g NaCl to each test tube with 5ml of water-label them A and B.
4. Shake the test tubes to dissolve the salts.
5. Place A in the hot water bath for about 5 minutes, and it turns hot.
6. Pour the liquid from A into pan A SLOWLY.
7. Determine the mass of pie pan A and its liquid and then pour liquid from test tube into pan.
8. Heat the pan on the hot plate on LOW heat to evaporate all of the liquid.
9. After the pan has cooled-get the weight of the pan,
10. Determine the mass of the liquid evaporated by subtracting the mass of the pan and salt after evaporation from the mass of the pan and liquid before evaporation.
11. Determine the mass of the salt left in the pan by subtracting the mass of the empty pan from the mass of the pan and salt.
12. Determine the masses of the dissolved salts to determine the solubility per 100g of water using a proportion.

Do the same with the room temperature test tube!

SOLUBILITY EXAMPLE

$$\frac{\text{g salt(this is from subtracting the pan)}}{\text{5g water}} = \frac{x}{\text{100g water}}$$

PROBLEMS ENCOUNTERED

The entire lab procedure went as planned. The only problem was deviation in the lab when turning the water into pan or in other places.

CONCLUSION

Depends on the experiment, I found that the solubility of salt is related to the temperature. This conclusion is based on limited testing, so we suggest you test more samples at the site. We would be glad to help you with this additional sampling and testing.

I will call you this week to discuss our study and any possible follow-up you may wish us to do.

Sincerely,
Wenqi Gao