Separation of Sand Lab

Chemistry Name

OBJECTIVE: To write and carry out a procedure to find the mass percent composition of a sand, salt, and iron mixture.

Guiding Questions

1. What is the simplest component to remove? What devices are necessary?
2. What is the most difficult component to remove? What options exist? Is it necessary to remove? Explain.
3. Which component will be left over at the end of the lab? Will it be reasonably pure?

MATERIALS

PROCEDURE

1

2

3

4

5

6

DATA

*Start with initial amounts. Include glassware measurements for comparison later. STAY ORGANIZED!*

ANALYSIS (show calculations)

|  |  |  |
| --- | --- | --- |
| **Component** | **Mass (g)** | **Percent** |
| *Sand* |  |  |
| *Salt* |  |  |
| *Iron* |  |  |

POST LAB QUESTIONS

1. What two elements are sand made up from? &

What is the main formula for sand?

What are the two most abundant elements on Earth? What are their percentages? Does this make sense?

2. Look up the orbital diagram of iron (Fe). Does this make iron diamagnetic or paramagnetic? Explain.

3. What property of table salt were you able to use to separate it from the mixture?

4. Are there any suggestions to improve this lab?