Density Online Lab Submission

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Class: Chem 1212

Section: Mondays, 10:30 AM - 1:25 PM

Report Sheet

I. Density of rock chunks

- Weight of rocks `19.741g`
- Volume before adding rocks `15.0 mL`
- Volume after adding rocks `23.2 mL`
- Volume of rocks `23.2 mL - 15.0 mL = 8.2 mL`
- Density of rocks $\frac{19.741g}{8.2mL} = 2.4g/mL$

II. Density of NaCl Solution

(A). Preparation of Solution

- Assigned Concentration: 15%
- Mass of NaCl needed: $15\% \times 100g = 15g$
- Volume of distilled water needed $85\% \times 100g \times \frac{1mL}{1g} = 85mL$
- Weight of beaker: `70.331g`
- Weight of beaker + NaCl: `85.348g`
- Weight of beaker + NaCl + water: `169.736g`
- Actual % NaCl: $\frac{85.348g - 70.331g}{169.736g - 70.331g} = 15.107\%$

(B). Density Determination

- Weight empty graduate: `47.915g`
- Weight of graduate + solution: `75.569.g`
- Volume of solution `25.0 mL`
- Density $\frac{75.569g - 47.915g}{25.0mL} = 1.11g/mL$
- Temperature of solution `20.0°C`

Post-Lab

1. $\frac{15.8g}{32.5mL - 22.3mL} = 1.55g/mL$
2. $\frac{12g}{12g + 52g} = 19\%$
3. True
4. Air bubbles would decrease the density of the rocks, because the measured volume (with rocks added) would be increased from the extra volume of air. There would be less mass per volume.