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| **Dougherty Valley HS AP Chemistry** | **Name:** | |
| **Analysis of Ag in an Alloy** | **Date:** | |
| **Group Name:** | **Period:** | **Seat #: N/A** |

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| **Quantitative Data Table** [fill in title]: | |
| Mass of silver Alloy, g |  |
| Mass of NaCl needed to precipitate the silver, g |  |
| Mass of NaCl used, g |  |
| Mass of dry filter paper, g |  |
| Mass of filter paper and AgCl, g |  |
| Mass of AgCl, g |  |
| Calculated percent of silver in silver chloride, by weight |  |
| Calculated mass of silver in alloy, g |  |

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| **Qualitative Date Table** [fill in title]: | | | |
|  | **Before** | **During** | **After** |
| **Steps 6-9** |  |  |  |
| **Step 14-15** |  |  |  |
| **Final Observations** |  | | |

\*To be completed after the experiment in this google doc

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| **Discussion Questions** | **Your answers** |
| 1. Why is a twofold excess of chloride added to precipitate the silver? | [Answer here] |
| 2. Why doesn't the sodium chloride need to be weighed on a sensitive balance? | [Answer here] |
| 3. Why is it necessary to wash the precipitate? | [Answer here] |
| 4. Will the nitric acid in the wash water interfere with the weight of the silver chloride? (Nitric acid is prepared by dissolving the gas N2O5 in water.) | [Answer here] |
| 5. If the crucible containing the silver chloride is not cool when its mass is determined, will the calculated percent silver be too high or too low? Why? | [Answer here] |
| 6. Why isn't hydrochloric acid used to both dissolve and precipitate the silver? | [Answer here] |
| 7. If the student misreads measurement the initial mass of the alloy bead to be higher than it really is, would the calculated percent of silver in the alloy bead be higher or lower than actually? Explain why. | [Answer here] |