

Discussion:

The experiment mole ratio is 2.308 and the class average mole ratio is 10.480. The ratio is higher because a higher amount of error can change the average mole ratio which gives a higher amount of error than experiment. The error percentage can vary depending on the accurately and precisely can get the zinc and Iodine weight to one gram. For example, low accuracy can lead to a higher percentage and higher accuracy can lead to a lower error percentage. The most common percentage error that students run into is the measurement of the zinc weight to close to 1 gram which can very unpredictable and handle for students.

Conclusion:

This experiment is to determine the empirical formula for a binary compound where there is a reaction occurring between the binary compounds. It is an experiment by observing and recording a reaction between zinc and iodine and how it has impacted or changed the physical or chemical of the compound. The anticipated result was the two have a single-molecule ratio which includes a binary compound empirical formula but during the actual experiment that compound had minor differences in the mole ratio because of errors in the experiments but it was heavily like the anticipated result. Errors are the amount of zinc and iodine that have varied depending on the accuracy of the measurements. In future experiments, it will be measured accurately as possible to actual values of the experiment.