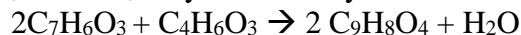


BCI SCIENCE
SCH 4CI**Worksheet:**
LR & Percent Yield

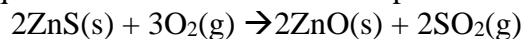
1. Aspirin, $C_9H_8O_4$, is synthesized by the reaction of salicylic acid, $C_7H_6O_3$, with acetic anhydride, $C_4H_6O_3$.



(a) When 20.0 g of $C_7H_6O_3$ and 20.0 g of $C_4H_6O_3$ react, which is the limiting reagent?

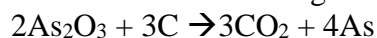
(b) 'What mass in grams of aspirin are formed?

2. Huge quantities of sulfur dioxide are produced from zinc sulfide by means of the following reaction.



If the typical yield is 86.78%, how much SO_2 should be expected if 4897 g of ZnS are used?

3. In the commercial production of the element arsenic, arsenic(III) oxide is heated with carbon, which reduces the oxide to the metal according to the following equation:



If 8.87 g of As_2O_3 is used in the reaction and 5.33 g of As is produced, what is the percent yield?