

Notes: BCA Method for Stoichiometry Problems

Before
Change
After

Step 1: Write the balanced equation.

Step 2: Make sure you have moles for your starting value. (Convert from grams to moles using the molar mass if needed.)

Step 3: Insert the starting moles into the BCA Table and complete the "B" Row.

Step 4: Calculate the changes necessary based on the mole ratio of the balanced equation. (Complete the "C" Row.)

Step 5: Calculate the "A" Row.

Step 6: Convert any values from the "A" Row into grams (if needed) by using the molar mass.

Practice Problem

Dihydrogen sulfide gas, which smells like rotten eggs, burns in air to produce sulfur dioxide and water. How many moles of oxygen gas would be needed to completely burn 2.4 moles of hydrogen sulfide? How many moles of each product would be produced?

Balanced Equation _____

B				
C				
A				

Practice Problem 2

A chemist has 23.5 g of copper (II) chloride and lots of aluminum foil. How many grams of each product can the chemist produce by reacting the copper (II) chloride with the aluminum foil?

Balanced Equation _____

B				
C				
A				