

2.7 Theoretical yield, experimental yield, and % yield

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- The mass ratio of H & C in a compound is 1:3. The empirical formula of the compound is
 - C_3H
 - CH_3
 - C_2H_6
 - CH_4
- A compound has the empirical formula CH , and its molecular mass is 65 amu. What is its molecular formula?
 - C_2H_2
 - C_4H_4
 - C_5H_{10}
 - C_5H_5
- An organic compound has an empirical formula CH_2O and a molecular weight of 90. Its molecular formula will be
 - $C_6H_{12}O_6$
 - $C_3H_6O_3$
 - $C_2H_4O_2$
 - CH_2O
- An organic compound having the general formula $C_nH_{2n+1}OH$ has a molecular mass of 46 amu. The value of n is
 - 1
 - 2
 - 3
 - 4
- A compound has a molecular weight of 78 and the empirical formula CH . The molecular formula is
 - C_5H_{12}
 - C_6H_6
 - $C_4H_{10}O$
 - $C_{10}H_9$
- The empirical formula of a compound is CH_2O . If its VD is 30, its molecular formula is
 - CH_2O
 - $C_2H_4O_2$
 - $C_3H_6O_3$
 - CH_3OH
- An organic compound having general formula $C_nH_{2n+1}OH$ has molecular mass 46 amu. The value of n is
 - 1
 - 2
 - 3
 - 4
- A compound is found to contain 50.05% sulfur and 49.95% oxygen by weight. The molecular weight for this compound is 64.07 g/mol. The probable molecular formula for the compound is;
 - SO_3
 - S_2O_3
 - SO
 - SO_2
- Caffeine is a natural stimulant most commonly found in tea, coffee, and cacao plants containing 49.5% C, 5.15% H, 28.9% N and 16.5 % O by mass. It has an empirical formula;
 - $C_4H_5N_2O$
 - $C_5H_4NO_2$
 - $C_5H_4N_2O$
 - $C_4H_5NO_2$

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