

Empirical Formula Practice

- 1 Find the empirical of a compound hydrocarbon, X, that contains 85.7% C and 14.3% H.

Elements	C	H
Percentage		
(Mass in 100 g)		
Divide by A_r		
moles		
Divide by smallest to get ratio		
Ratio		
Empirical formula:		

- 2 Find the empirical of a compound Y that contains 28.2% K, 25.6% Cl and 46.2% O.

Elements	K	Cl	O
Percentage			
(Mass in 100 g)			
Divide by A_r			
moles			
Divide by smallest to get ratio			
Ratio			
Empirical formula:			

- 3 10.0 g of a compound A contains 5.22g of C, 3.48g O and 1.30g H. Find the empirical of A.

Elements	C	O	H
Mass			
Divide by A_r			
moles			
Divide by smallest to get ratio			
Ratio			
Empirical formula:			

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- 4 A compound contains 93.88% P and 6.12% H. Calculate the empirical formula of the compound.

P	H
Empirical formula:	

- 5 A compound contains 93.34% N and 6.66% H. Calculate the empirical formula.

- 6 17.4 g of a manganese oxide contains 11.0 g of manganese. Calculate the empirical formula of the compound.

- 7 A compound contains 9.2g Na, 12.8g S and 9.6 g O. Calculate the empirical formula.

- 8 The empirical formula of a compound is CH_2 and the relative molecular mass is 56. What is the molecular formula?

- 9 The empirical formula of a compound is $\text{C}_2\text{H}_3\text{O}$ and the relative molecular mass is 86. What is the molecular formula?