Question #64717, Chemistry / General Chemistry

2 g of anhydrous nitrate produces 1.32 g of gases name the nitrate

Answer*:*
Me(NO$_3$)$_2$ = MeO + 2NO$_2$ + O$_2$
We have three moles of gases per 1 mol of nitrate!

$$M(MeO) = x + 16$$
$$m(MeO) = 2.00\ g - 1.32\ g = 0.68\ g$$
$$M(Me(NO_3)_2) = x + 28 + 96 = x + 124$$
$$n(Me(NO_3)_2) = n(MeO)$$
$$\frac{0.68\ g}{x + 16} = \frac{2.00\ g}{x + 124}$$
$$2.00\ x + 32 = 0.68\ x + 84.32$$
$$1.32\ x = 52.32$$
$$x = 39.63$$

Me is Ca. Nitrate is **calcium nitrate!**

Answer provided by AssignmentExpert.com