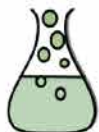


STOICHIOMETRY

1



Determine the mass of lithium hydroxide produced when 0.83 g of lithium nitride reacts with water.



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STOICHIOMETRY

2



How many moles of ethane (C_2H_6) would be needed to react with 1150 g of oxygen?



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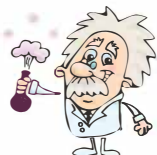


STOICHIOMETRY

3



How many liters of N_2H_4 gas at STP are needed to react with 386.70 g O_2 ?



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STOICHIOMETRY

4



How many grams of Zinc are needed to produce 26.5 g ZnCl_2 ?



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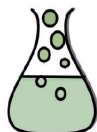


STOICHIOMETRY

5



How many grams of hydrochloric acid is needed in order to obtain 12.3 L arsine (AsH_3) gas at STP?



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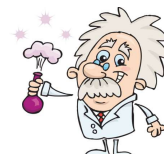


STOICHIOMETRY

6



How many grams of calcium hydroxide are needed to completely react with 18.7 moles of hydrofluoric acid?



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STOICHIOMETRY

7



How many liters of HCl at STP are produced by reacting 35 g NaCl completely with sulfuric acid?

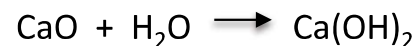


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STOICHIOMETRY

8



How many grams of CaO are needed to produce 25.75 g $\text{Ca}(\text{OH})_2$?



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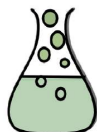


STOICHIOMETRY

9

If 95.0 g Zn is added to an excess of H_2SO_4 , how many liters of hydrogen gas will be produced at STP?

Write and balance the equation. Then, calculate the liters of hydrogen produced.

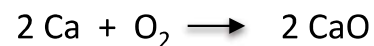


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10



How many grams of calcium will be needed to produce 13.6 mol CaO?



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11

A reaction between phosphorus, P_4 , and an excess oxygen produces tetraphosphorus decoxide. If 74.3 g phosphorus is used, how many grams of tetraphosphorus decoxide will be produced?

Write and balance the equation. Then, calculate the grams of tetraphosphorus decoxide.



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12



How many moles of H_2O must be decomposed to form 200. mol H_2 ?



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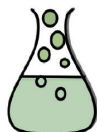


STOICHIOMETRY

13

If 40.0 grams of sulfur dioxide are formed in the reaction between sulfur and oxygen, what is the mass of oxygen used?

Write and balance the equation. Then, calculate the mass of oxygen used.



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STOICHIOMETRY

14



If 7.00 moles silver nitrate reacts, what mass of copper (II) nitrate would be formed?



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STOICHIOMETRY

15

If 17.6 L C_3H_8 , propane gas, reacts with oxygen at STP, how many moles of oxygen are needed?

Write and balance the equation. Then, calculate the moles of oxygen needed.



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STOICHIOMETRY

16

Challenge Question!

Carbon dioxide reacts with ammonia, NH_3 , and water producing ammonium bicarbonate. How many kilograms of ammonium bicarbonate are produced if 4575 L of ammonia is reacted at STP?

Write and balance the equation. Then, calculate the moles of oxygen needed.



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