STP Quiz

Friday, November 20, 2009
9:40 AM

Name:
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STP Quiz A

1. Calculate the volume of the following gases at S.T.P.?
   a. 1.67 moles of CH_4 $\left(\frac{22.4\,L}{1\,mol}\right) = 37.4\,L$
   b. 0.0400 moles of NH_3 $\left(\frac{22.4\,L}{mol}\right) = 0.896\,L$
   c. 0.050 moles of CH_4 $\left(\frac{22.4\,L}{mol}\right) = 1.1\,L$
   d. 25.0 moles of NH_3 $\left(\frac{22.4\,L}{mol}\right) = 560.\,L$
   e. 8.30 moles of CH_4 $\left(\frac{22.4\,L}{mol}\right) = 186\,L$

2. Calculate the moles and volume of the following gases at STP?
   a. 128 grams of O_2 $\left(\frac{mol}{32.0\,g}\right)\left(\frac{22.4\,L}{mol}\right) = 89.6\,L$
   b. 56.0 grams of C_2H_4 $\left(\frac{mol}{28.0\,g}\right)\left(\frac{22.4\,L}{mol}\right) = 44.8\,L$
   c. 6.40 grams of O_2 $\left(\frac{mol}{32.0\,g}\right)\left(\frac{22.4\,L}{mol}\right) = 4.48\,L$
   d. 0.112 grams of C_2H_4 $\left(\frac{mol}{28.0\,g}\right)\left(\frac{22.4\,L}{mol}\right) = 0.0896\,L$
   e. 2.40 grams of O_2 $\left(\frac{mol}{32.0\,g}\right)\left(\frac{22.4\,L}{mol}\right) = 1.68\,L$

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STP Quiz B

1. Calculate the volume of the following gases at S.T.P.?

a. 2.33 moles of CH_4

b. 0.0800moles of NH_3

c. 0.075 moles of CH_4

d. 35.0 moles of NH_3

e. 6.25moles of CH_4

2. Calculate the moles and volume of the following gases at STP?

a. 76grams of F_2

b. 22.0 grams of C_3H_8

c. 15.2grams of F_2

d. 0.110grams of C_3H_8

e. 0.190grams of F_2

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STP Quiz C

1. Calculate the volume of the following gases at S.T.P.?

a. 5.76 moles of CH_4

b. 0.0900 moles of NH_3

c. 1.15 moles of CH_4

d. 62.9 moles of NH_3

e. 4.15 moles of CH_4

2. Calculate the moles and volume of the following gases at STP?

a. 72 grams of N_2

b. 66.0 grams of C_4H_{10}

c. 8.50 grams of N_2

d. 0.985 grams of C_4H_{10}

e. 21.75 grams of N_2