

~~FI4~~ (13) $2S_{(s)} + 3O_{2(s)} \rightarrow 2SO_{3(s)} + 790KJ$

$\frac{0.95g}{32g} \times 1 \text{ mole } S \times 790 KJ = 11.7265 KJ$

$\frac{0.95g}{32g} \times 2 \text{ moles } SO_3 = 0.059375 \text{ moles } SO_3$

$0.059375 \text{ moles } SO_3 \times 790 KJ = 46.90625 KJ$

$\frac{46.90625 KJ}{2} = 23.453125 KJ$

$\frac{23.453125 KJ}{2} = 11.7265 KJ$

EXO — KJ

Jan 19-7:43 AM

(11) $3Cu + 8HNO_3 \rightarrow 3Cu(NO_3)_2 + 2NO + 4H_2O$

$42.6g \quad 84g \quad \rightarrow$

$42.6g \text{ Cu} \quad \text{LR} \quad = 125g$

$\frac{84g \text{ HNO}_3}{63g \text{ HNO}_3} \times 3 \text{ mole } Cu(NO_3)_2 = 1.2 \text{ mole } Cu(NO_3)_2$

$1.2 \text{ mole } Cu(NO_3)_2 \times 188g \text{ (4 HNO}_3) = 225.6g$

$\frac{225.6g}{2} = 112.8g$

$\frac{112.8g}{0.9} = 125.33g$

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$n = \text{PEL (Size)}$
 $l = \text{azimuthal (Shape) - quantum \#}$
 $m = \text{Magnetic quantum \# (orientation in space)}$
 $S = \text{spin}$
 (M_s)

$s = \text{Sphere}, p \infty$
 $\rightarrow \text{Sublevel}$

S	P	d	f
0	1	2	3

$\frac{-1}{p_x}$ $\frac{0}{p_y}$ $\frac{+1}{p_z}$
 ∞ 8 ∞

$\otimes \uparrow$ $\downarrow \otimes$
 $+$
 $-\frac{1}{2}$

Jan 19-8:14 AM

