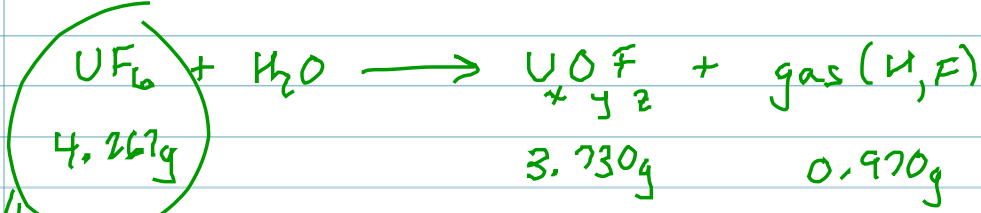


UO<sub>2</sub>F<sub>2</sub> empirical formula





gas 95% F      $0.970g \times 0.95 = 0.922g F \times \frac{1 \text{ mol}}{18.99} = 0.0475 \text{ mol F}$   
           5% H

$0.048g \times \frac{1 \text{ mol}}{1.01g} = 0.0475 \text{ mol H}$

EF = HF

$M_m = 351.97g/mol$       $F: \frac{(6 \times 18.99)}{351.97} = 0.3237 \times 4.267g = 1.381g F$  in  $UF_6$

$1.381g F$   
 $- 0.922g F \text{ in HF} \Rightarrow \frac{2}{3} F$   


---

 $0.459g F \text{ in new solid} \Rightarrow \frac{1}{3} F$

$U: \frac{238.03g}{351.97g} \times 4.267g = 2.886g U$

new solid

3.730g	
- 2.886g U	
- 0.459g F	
0.385g O	

U: 2.886g	→ 0.01212	→ 1
O: 0.385g	→ 0.0238	→ 2
F: 0.459g	→ 0.0242	→ 2

$UO_2F_2$  empirical formula

