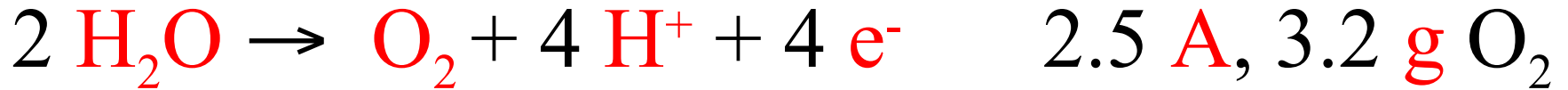


Electrolysis of water



$$3.2 \text{ g O}_2 \times \frac{1 \text{ mol O}_2}{32 \text{ g O}_2} \times \frac{4 \text{ mol e}^-}{1 \text{ mol O}_2} \times \frac{96500 \text{ C}}{1 \text{ mol e}^-} = 38600 \text{ C}$$

$$2.5 \frac{\text{C}}{\text{s}} \times \text{s} = 38600 \text{ C} \quad \text{s} = 15440 \text{ s}$$

$$15440 \text{ s} \times \frac{1 \text{ min}}{60 \text{ s}} \times \frac{1 \text{ hr}}{60 \text{ min}} = 4.3 \text{ hr}$$