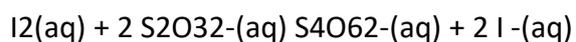
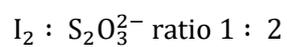


How many milliliters of 0.450 M Na₂S₂O₃ solution are needed to titrate 2.445 g of I₂ to the equivalence point?



Solution

$$n(\text{I}_2) = \frac{2.445}{126.9} = 0.01926 \text{ mol}$$



$$n(\text{S}_2\text{O}_3^{2-}) = n(\text{I}_2) \cdot 2 = 0.03852 \text{ mol}$$

$$V_{\text{titr.}} = \frac{0.03852 \text{ mol}}{0.45 \text{ mol/L}} = 0.0856 \text{ L}$$

Answer: 85.6 mL

Answer provided by www.AssignmentExpert.com