

Data Table

Concentration of Na ₂ S ₂ O ₃ solution <u>0.050</u> M			
Part 1	Ca(IO₃)₂ in Pure Water	Trial 1	Trial 2
Initial buret reading (to the nearest 0.1 mL)		<u>0</u> mL	<u>0</u> mL
Final buret reading (to the nearest 0.1 mL)		<u>6.8</u> mL	<u>6.5</u> mL
Volume of Na ₂ S ₂ O ₃ used		mL	mL
Part 2	Ca(IO₃)₂ in 0.0100 M KIO₃		
Initial buret reading (to the nearest 0.1 mL)		<u>0</u> mL	<u>0</u> mL
Final buret reading (to the nearest 0.1 mL)		<u>18.2</u> mL	<u>18.5</u> mL
Volume of Na ₂ S ₂ O ₃ used		mL	mL

Calculations

Part 1	Ca(IO₃)₂ in Pure Water	Trial 1	Trial 2	
Molarity of the IO ₃ ⁻ (from equation 6)		M	M	
Average Molarity of the IO ₃ ⁻				M
Molarity of the Ca ²⁺ (1/2 the above value)				M
Value of K _{sp} for Ca(IO ₃) ₂ (equation (3) on page 1)				M ³
Part 2	Ca(IO₃)₂ in 0.0100 M KIO₃	Trial 1	Trial 2	
Molarity of the IO ₃ ⁻ (from equation 6)		M	M	
Average Molarity of the IO ₃ ⁻				M
Average Molarity of the IO ₃ ⁻ minus common ion				M
Molarity of the Ca ²⁺ (1/2 the (above value))				M
Value of K _{sp} for Ca(IO ₃) ₂ (equation (3) on page 1)				M ³

Compare [Ca²⁺] from Parts 1 and 2 (note: this is the solubility). Is Le Châtelier's law followed? Explain

<p>Are the K_{sp}'s from Parts 1 and 2 consistent?</p>
--