

Marks
2

- Oxalic acid, $\text{H}_2\text{C}_2\text{O}_4$, found in rhubarb, causes muscle spasms by precipitating Ca^{2+} ions from the blood as calcium oxalate, $\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$. Given the solubility product constant for calcium oxalate is $2.3 \times 10^{-9} \text{ M}^2$, calculate the concentration of calcium ions in g L^{-1} formed by dissolving $\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$ in water at 25°C to give a saturated solution.

Answer: