

- Following blood donation, a solution of sodium oxalate is added to remove  $\text{Ca}^{2+}$  ions (as calcium oxalate,  $\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$ ,  $K_{\text{sp}} 2.3 \times 10^{-9}$ ), which cause the blood to clot. If the concentration of  $\text{Ca}^{2+}$  ions in blood is  $9.7 \times 10^{-5} \text{ g mL}^{-1}$ , and 100.0 mL of 0.1550 M  $\text{Na}_2\text{C}_2\text{O}_4$  is added to a 104 mL sample of blood, what will be the concentration (in  $\text{mol L}^{-1}$ ) of  $\text{Ca}^{2+}$  ions remaining in the blood?

Answer: