

AP CHEM

SPECTATOR IONS & NET IONIC EQUATIONS

REVIEW



What are spectator ions?

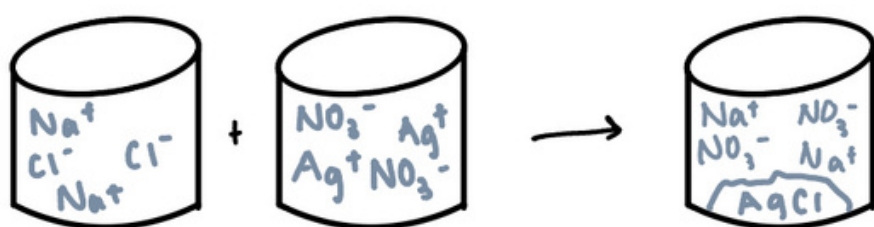
• Spectator ions are ions present on both sides of an equation

• common examples: Na^+ , Cl^- , K^-

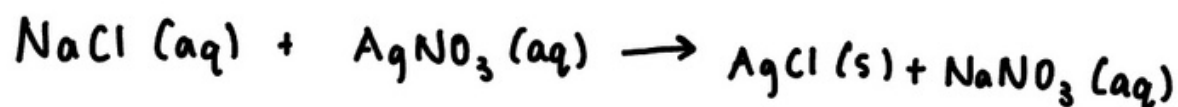
REMEMBER:

➤ spectator ions are in the same state (aq) on both sides of the equation

➤ DO NOT form a precipitate → "spectates"



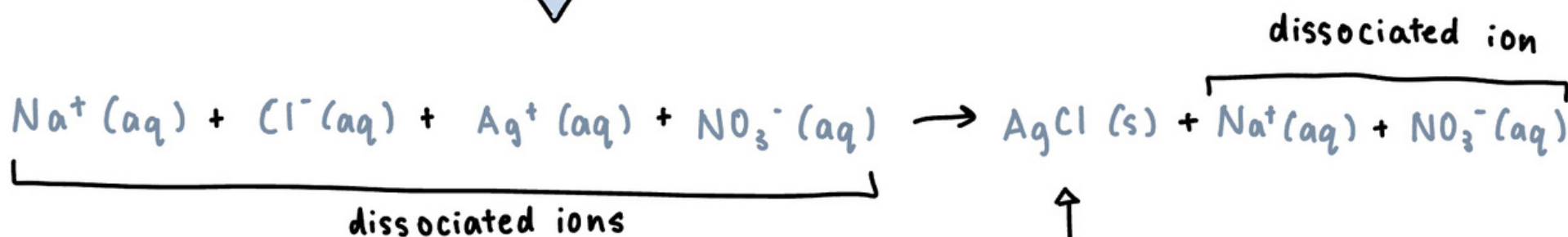
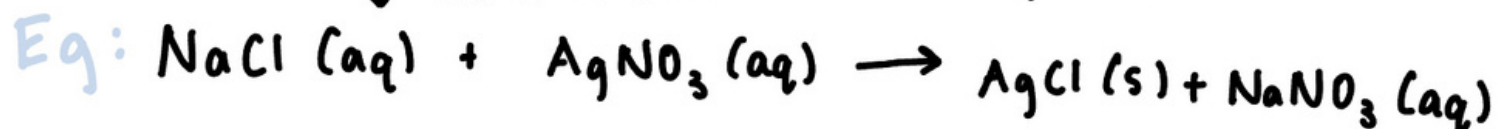
in this case, Na^+ & NO_3^- appear on both sides in the same aqueous state
→ spectator ions



Complete ionic equation

- A complete ionic equation indicates dissociated ions in an equation – helps identify spectator ions

↓ this is the balanced molecular equation



COMPLETE IONIC EQUATION

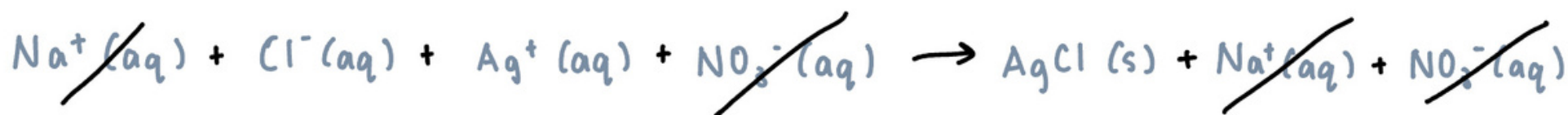
↑ Insoluble solid maintains same representation

Net ionic equation

• the net ionic equation shows only the ions involved in the chemical reaction

- using the total ionic equation, we can identify the spectator ions: $\text{Na}^+(\text{aq})$ & $\text{NO}_3^-(\text{aq})$ → present on both sides

- we can cross them out, since they do not participate in reaction



NET IONIC EQUATION

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more!**



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