

# Languages in Contact

Lisa Lim and  
Umberto Ansaldi

KEY TOPICS IN SOCIOLINGUISTICS

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 net ionic equation  $\text{H}^+ \text{aq} + \text{HCO}_3^- \text{aq} \rightarrow \text{H}_2\text{O} \text{l} + \text{CO}_2 \text{g}$  here is a video on spectator ions  
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web the six  $\text{Na}^+$  ions and the six  $\text{Cl}^-$  ions that appear on both sides of the equation are spectator ions that can be canceled to give the net ionic equation  $\text{Ba}^{2+} \text{aq} + 2\text{PO}_4^{3-} \text{aq} \rightarrow \text{Ba}_3(\text{PO}_4)_2 \text{s}$

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web these spectator ions whose presence is required to maintain charge neutrality are neither chemically nor physically changed by the process and so they may be eliminated from the equation to yield a more succinct representation called a

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 $\text{AgNO}_3 \text{aq} + \text{KCl} \text{aq} \rightarrow \text{AgCl} \text{s} + \text{KNO}_3 \text{aq}$  total ionic  $\text{Ag}^+ \text{aq} + \text{NO}_3^- \text{aq} + \text{K}^+ \text{aq} + \text{Cl}^- \text{aq} \rightarrow \text{AgCl} \text{s} + \text{K}^+ \text{aq} + \text{NO}_3^- \text{aq}$  net ionic  $\text{Ag}^+ \text{aq} + \text{Cl}^- \text{aq} \rightarrow \text{AgCl} \text{s}$  2

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web net ionic equations an equation for a reaction in solution showing only those particles that are directly involved in the chemical change spectator ions an ion that is not directly involved in a chemical reaction an ion that does not change oxidation number or composition during a reaction products

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web the equation below is the final net ionic equation after elimination of the spectator ions which yields water  $\text{H}^+ \text{aq} + \text{OH}^- \text{aq} \rightarrow \text{H}_2\text{O} \text{l}$  the spectator ions in  $\text{KOH} \text{aq}$  and  $\text{HNO}_3 \text{aq}$  are  $\text{K}^+ \text{aq}$  and  $\text{NO}_3^- \text{aq}$  how to identify and list the

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