

**21** X, Y and Z are three aqueous solutions. Equal volumes of pairs of the solutions are mixed and observations noted.

X mixed with Y shows no reaction.

X mixed with Z shows an immediate reaction.

Z mixed with Y shows no reaction.

What are X, Y and Z?

	X	Y	Z
<b>A</b>	$\text{Br}_2(\text{aq})$	$\text{I}_2(\text{aq})$	$\text{HBr}(\text{aq})$
<b>B</b>	$\text{Cl}_2(\text{aq})$	$\text{I}_2(\text{aq})$	$\text{HBr}(\text{aq})$
<b>C</b>	$\text{HCl}(\text{aq})$	$\text{HI}(\text{aq})$	$\text{Br}_2(\text{aq})$
<b>D</b>	$\text{HCl}(\text{aq})$	$\text{Br}_2(\text{aq})$	$\text{HBr}(\text{aq})$