

# Describing O.C.s

## 1 Colour / smell of gases

	$\text{Cl}_2$	very pale yellowish green gas	} Toxic. - If the exp. produces these gases, it should be performed in a fume cupboard.
	$\text{Br}_2$	brown gas	
requires heat ( $\because \text{Br}_2$ is liquid in room conditions)	$\text{I}_2$	purple gas	
	$\text{NO}_2$	brown gas	
	$\text{SO}_2$	choking / pungent smell	
	$\text{NH}_3$	choking / pungent smell	

## 2 Colour of salts (s)



- both colourless in aq → usually white
- either one coloured → follow its colour
- both coloured → mix colours / choose more distinct colour

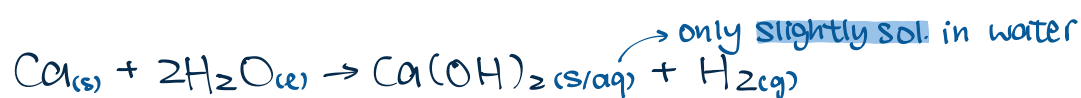
## 2 Observable changes

$\text{X}_{(s)} \rightarrow \text{XY}_{(aq)}$	X dissolves
$\text{XY}_{(aq)} \rightarrow \text{Y}_{(s)}$	<colour> solid deposits
$\text{aq} / (\text{l}) \rightarrow \text{g}$	<colour> bubbles evolve
$\text{aq} / (\text{l}) \rightarrow \text{aq} / (\text{l})$	sol <sup>n</sup> turns from <colour> to <colour>
$\text{X}_{(s)} \rightarrow \text{XY}_{(s)}$	<colour> solid turns <colour>
$\text{aq} \rightarrow (\text{l}) \rightarrow \text{喷出 test tube}$	<colour> fumes evolve

## 3 Examples



- |   |  |
|---|--|
| - $\text{Cu}_{(s)} \rightarrow \text{Cu}^{2+}_{(aq)}$ | copper dissolves → 只能说有什么 reactant, product 要用 colour + state 形容<br>solution turns from colourless to blue<br>colourless gas bubbles evolve<br>choking smell |
| - $\rightarrow \text{Cu}^{2+}_{(aq)}$                 |  |
| - $\rightarrow \text{SO}_{2(\text{g})}$               |  |
| - $\rightarrow \text{SO}_{2(\text{g})}$               |  |



- |   |  |
|---|--|
| - $\text{Ca}_{(s)} \rightarrow \text{Ca}^{2+}_{(aq)}$               | calcium dissolves<br>white solid deposits<br>colourless gas bubbles evolve |
| - $\text{Ca}_{(s)} \rightarrow \text{Ca}(\text{OH})_{2(\text{aq})}$ |  |
| - $\rightarrow \text{H}_{2(\text{g})}$                              |  |