

Comprehending Chemistry Year 12

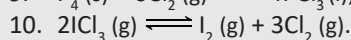
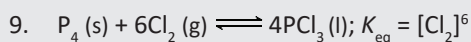
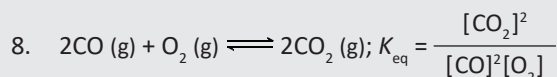
Errata

29/04/2022

On page 65, Module 5 Review test answers, Question 10, the last line of workings should end in **0.11** not **0.26**.

p65

Module 5 Review test answers – continued



ICl_3	I_2	Cl_2
$[\text{ICl}_3] = 1.1/2.0 = 0.55 \text{ mol/L}$		$[\text{Cl}_2] = 0.8/2.0 = 0.4 \text{ mol/L}$
$i = 0.55 \text{ mol/L}$	$i = 0$	$i = 0$
$c = -0.133 \times 2 = -0.266$	$c = +0.4/3 = 0.133$	$c = +0.4$
$e = 0.284$	$e = 0.133$	$e = 0.4$
So, $K_{\text{eq}} = (0.133 \times 0.4^3) \div 0.284^2 = 0.11$		

On page 134, Exercise 7.2, Question 5 should refer to “isomers” instead of “**chain** isomers”.

p134

Exercise 7.2 Isomers

1. Define the term isomer.
2. Why does a chain isomer occur?
3. Draw the structures for the chain isomers of pentane, 2-methylbutane and 2,2-dimethylpropane.
4. Describe, with examples, how a position isomer differs to a functional group isomer.
5. Draw the structures for the isomers 3-hexene and 2-hexene.

On page 239, Table 8.4, iron's flame colour should be "pale green-**yellowish**" instead of "pale green-**colourless**".

Therefore on page 289, Module 8 Review test answers, Question 3 should read that " Fe^{2+} has a pale green-yellowish flame ..." not a pale green flame.

p239

Ion	Charge	Flame colour
barium	2^+	 pale apple/pale green
calcium	2^+	 brick red/orange-red
copper	2^+	 blue-green
iron	2^+	 pale green-yellowish
		

p289

1. Inhibits lathering/cleaning ability, builds up scale that may block plumbing over time.	The separated fragments are then sent to the detector which converts the pulse into a mass spectrum. The magnetic field separates mass – the heavier the fragment, the less it will be deflected by the magnetic field, and the lighter the fragment the more it will be deflected.
2. By the burning of fossil fuels or the combustion of nitrogen in air at very high temperatures.	
3. Flame test colour – <u>Fe^{2+} has a pale green-yellowish flame</u> Fe^{3+} has a yellowish-brown flame. Precipitation with sodium hydroxide – Fe^{2+} forms a green precipitate, Fe^{3+} forms a rusty brown precipitate.	charged particles will be accelerated into the magnetic field, so the detector can process the data.

On page 297, Sample Exam answers: Section 1, Question 12, the answer is C not D.

p297

Section 1: Multiple choice answers			
1. C	6. A	11. B	16. B
2. C	7. C	12. C	17. D
3. A	8. D	13. D	18. A
4. D	9. A	14. C	19. C
5. D	10. B	15. A	20. D