## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

## MARK SCHEME for the May/June 2006 question paper

## 0620 CHEMISTRY

0620/06

Paper 6, maximum raw mark 60

These mark schemes are published as an aid to teachers and students, to indicate the requirements of the examination. They show the basis on which Examiners were initially instructed to award marks. They do not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

The minimum marks in these components needed for various grades were previously published with these mark schemes, but are now instead included in the Report on the Examination for this session.

CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the May/June 2006 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



	Page 1		ark Scheme	Syllabus	Paper
		IGCSE	- May/June 2006	0620	06
1	(a) Boxes con	mpleted	tubes (1) hydrochloric acid (1) electrodes (1)		[3]
	(b) Electrolys	sis (1)			[1]
	(c) Litmus pa	aper (1), bleaches/white	(1)		[2]
2	(a) To extrac	et the colour owtte (1)			[1]
	(b) To remov	ve solid/insoluble impurit	ties (1)		[1]
	(c) Heating/e	evaporation (1)			[1]
	(d) Diagram	showing spots (1)	3 at different levels (1)		[2]
3	Maximum tem	nperatures reached			
	22 34 46 48	3 44 40 (2)			[2]
	-1 for any incorrect				
	(a) So that th	ne solutions are at same	e/lab/room temperature (1)		[1]
	<b>(b)</b> 22°C (1)				[1]
	(c) Good insu	ulator owtte (1)			[1]
	(d) Graph all	points correct (2)	-1 for any incorrect		
	2 straight	lines (1)			[3]
	(e) (i) 50°C	(1)			[1]
	(ii) Indica	(ii) Indication where lines intersect (1)			[1]
	(iii) 24 cn	m³ or from graph (1)			[1]
	(f) Exotherm	nic (1)			[1]
4	Volumes from	n cylinder diagrams			
Experiment 2					
	0 16 31 39		all correct (2)		[2]
	-1 for any incorrect				
	Experiment 3				
	0 9 17 21		all correct (2)		[2]

Page 2	e 2 Mark Scheme		Paper
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## **Experiment 4**

0 6 11 14 all correct (2) [2] (a) Graph. All points plotted correctly (3). -1 for each incorrect smooth curves (1), labels (1) [5] **(b) (i)** Experiment 1 (1) [1] (ii) Most concentrated solution (1), more collisions (1) [2] (c) (i) Two errors (2) e.g. amount of catalyst/timing/volume of solution [2] (ii) Two improvements (2) e.g. measure mass of catalyst/use burette or pipette/data logging [2] (d) Filter (1), same mass of catalyst before and after (1)/repeat experiment and compare volumes of gas collected [2] 5 **(b) (i)** white (1), precipitate (1), dissolves/soluble (1) [3] (ii) white (1), precipitate (1), dissolves/soluble (1) [3] (d) reference to water (1) e.g. hydrated salt [1] (e) sulphate (1), not a chloride (1) [2] (f) carbon dioxide (1), from a carbonate (1) [2] Measured volume of oven cleaner (1) Add indicator/named indicator (1) Add named acid (1), from a burette/pipette (1) Until colour change/end point (1), measure/record volume of acid (1) Repeat with other cleaner (1), compare (1) Max 6 [6]

Total for paper = 60