

CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

MARK SCHEME for the May/June 2014 series

0620 CHEMISTRY

0620/52

Paper 5 (Practical), maximum raw mark 40

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Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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1 Experiment 1

Table of Results

initial temperature boxes all completed (1)

final temperature boxes all completed and final > initial (1)

temperature changes completed correctly (1)

temp change increases as length Mg increases (1)

comparable to Supervisor's, highest temp change within $\pm 5^{\circ}\text{C}$ (1) [5]

(f) horizontal scale completed correctly (2 cm = 1 cm magnesium ribbon) (1)

all points plotted correctly (2), 4 points correct (1), 3 or fewer correct (0)

straight line of best fit drawn with a rule (1) [4]

(g) value from graph \pm half a small square (1)

tie line/indication shown (1) [2]

(h) any **two** from: [2]

fizzing/bubbles/effervescence (1)

magnesium/solid gets smaller/disappears (ignore dissolves) (1)

gets hot/warm (1)

(i) experiment 5 / 7cm (1)

more/most magnesium (1) [2]

(j) temperature change/reaction faster (1)

bigger surface area (1) [2]

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- (k) shows gas collected over water (1)
in labelled measuring cylinder/graduations shown on collection vessel (1)
- OR**
- shows gas collected in a gas syringe (1)
labelled gas syringe/graduations shown (1) [2]
- (l) heat loss/use of measuring cylinder/measurement of volume of acid (1)
insulate/use pipette or burette (1)
note: improvement must match error [2]
- [Total: 21]
- 2 (a) white (solid/powder) (1) [1]
- (b) any **three** from: [3]
pH paper turns blue/dark(er) green (1)
pH>7/alkaline (1)
solid on sides of tube/white smoke (1)
reference to smell (1)
- (c) (i) paper turns blue/pH > 7/alkaline (1) [1]
(ii) white precipitate (1) [1]
- (d) fizz/bubbles/effervescence (1)
limewater milky/cloudy (1) [2]
- (e) (i) white (1) precipitate (1)
dissolves/disappears/clears (1) only if indication that a solid was made. [3]
(ii) white precipitate (1) **not** slight or faint precipitate
dissolves/disappears/clears (1) only if indication that a solid was made. [2]

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- (f) ammonia/alkaline gas (1)
decomposes/sublimes (1) [2]
- (g) ammonium (1) chloride (1) [2]
- (h) zinc (1) carbonate (1) [2]
- [Total: 19]