

4(a)(i)	concentration (of sulfuric acid particles) decreases <b>OR</b> frequency of collisions between particles decreases	1
4(a)(ii)	all the ( <b>sulfuric</b> ) acid has reacted	1

Question	Answer	Marks
4(b)	<p><b>M1</b> greater surface area (of zinc)</p> <p><b>M2</b> frequency of collisions between (zinc and acid) particles increases</p>	2
4(c)	<p><b>M1</b> mol H<sub>2</sub>SO<sub>4</sub> = 2.00 x 25.0/1000 = 0.05(00)</p> <p><b>M2</b> mol H<sub>2</sub> = M1 = 0.05(00)</p> <p><b>M3</b> vol H<sub>2</sub> = M2 × 24 = 1.2(0)</p>	3
4(d)(i)	<p>Zn + 2HCl → ZnCl<sub>2</sub> + H<sub>2</sub></p> <p><b>M1</b> ZnCl<sub>2</sub></p> <p><b>M2</b> equation correct</p>	2
4(d)(ii)	lighted splint <b>and</b> (squeaky) pop	1

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