

Assignment Guide: Unit 12 Electrons in Action

Outline Guidance for Assignment 12.2	Commentary on Mark Allocation
<p>Task 1 – Research</p> <p>Introduction</p> <p>Theory of electrolysis and electroplating which includes definitions of the terms stated in 12.2.3.</p>	<p>Consideration of the theory should lead to the choice of conditions to change.</p> <p>One of the conditions changed should show no effect if MB3 is to be obtained.</p>
<p>Task 2</p> <p>Experimental work</p> <p>This can be done in the laboratory using experimental details supplied.</p> <p>Task requires practical details to be included but there is no necessity for students to rewrite experimental procedures however details of:</p> <ul style="list-style-type: none"> • Risk assessments used/composed • Solutions needed • Measurements to be taken • Information on the conditions to be changed and how this will be done • Reasons for choice <p>Should be included.</p> <p>Explanation of practical techniques to improve results (MB3).</p>	<p>Procedures that are used to ensure an accurate measurement must be stated and used for MB3 e.g. repetition of measurements, removal of any contaminants.</p> <p>If only one condition used for experiment, then only MB1 possible.</p> <p>No risk assessment, no marks.</p>
<p>Task 3, Task 4 and Task 5</p> <p>Results and calculations</p> <p>Results tabulated and analysed.</p> <p>Results displayed in a different way (graphically?) from other assignment for AO3b.</p>	<p>Must be at least two sets of results in order to achieve MB1.</p> <p>If help has been given, only MB1 possible.</p> <p>MB3 requires the data to be tabulated to the accuracy of which the apparatus is capable and the data to be displayed with units etc and in 'easy-to-read' formats.</p>

<p>Calculations made</p> <p>Opportunity for further analysis of results linked to calculations</p> <p>Conclusions</p> <p>Drawn from the data and applied to the brief</p> <p>Accuracy, evaluation of procedures</p> <ul style="list-style-type: none"> • Discussion of the accuracy of the apparatus used • Limitations of the method • Possible other methods. 	<p>Possible contribution to AO2. Actual mark will depend on whether the calculations are straightforward or complex.</p> <p>MB1 will be given for an obvious conclusion. Conclusion must be related to the theory of electrolysis for MB3.</p> <p>Mark Band 3 is awarded only if alternative methods are suggested.</p>
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