

Electrochemical Cell LAB REPORT

Name _____

Date _____

Score ____ / 100 pts

Title	The lab has a title at the top of the lab notebook.		Lab missing title
	1		
Purpose	The lab has a purpose that is appropriate for the lab.	The purpose does not relate to the lab and its key concepts.	Lab missing purpose
	1		1/2
Pre-lab	Purpose stated, all MSDS displayed correctly, procedure described	Missing parts of the prelab or missing/incorrect MSDS information	Pre-lab missing most information or not completed
	3	2	1
Analysis and Calculations	All calculations are completed correctly and use significant figures	One or more calculations either incorrect or missing work/equations	Calculations performed incorrectly or no calculations performed
	THIS IS THE BIG SECTION – SEE BELOW (out of 81 points)		
Questions 1-2	All questions answered correctly in complete sentences	Most or some questions answered completely and correctly	All questions answered correctly or not completed
	3	2	1
Error Analysis (Question 4)	Chose non-human source of error and explained effect on experiment showing all steps / variables for all	Chose a non-human error and did not complete all steps in explanation, or chose human error	Incomplete or only identified error without any analysis
	2	1	
Conclusion	All parts of RERUN applied correctly and explained	Some parts of the lab missing or completed incorrectly	Missing most or all of the conclusion
	4	3	2
	0		1

CELLS YOU'LL NEED –

5 cells in Part 1 (metals and solutions with the same concentration)

3 cells in Part 2 (metals and solutions with different concentrations)

1 cell in Part 3 (same metal on both sides, different concentrations)

FOR EACH CELL – You're completing the analysis section – here's the point breakdown:

1. Picture of the cell (1 point)
2. Identification of oxidized and reduced (1/2 point)
3. Half reactions for each half cell (1 point)
4. Net redox reaction (1 point)
5. Anode and cathode (1/2 point)
6. Oxidizing and reducing agent (1/2 point)
7. Cell potential
 - Theoretical cell potential (1 point)
 - *Nernst for part 2 cells (1 point)
 - Experimental cell potential + % error (1 point)
8. Flow of electrons (1/2 point)
9. Line notation of cell (1 point)
10. Electrode gaining mass (1/2 point)
11. Flow of ions in salt bridge (1/2 point)
12. Gibbs free energy (1 point)
13. Equilibrium constant (for Part 2) (1 point)

Comments: