

AP Chemistry Unit 9 Applications of Thermodynamics - Electrochemistry Study online at https://quizlet.com/_80ymmh

Study of	illile at https://q	diziet.com/_coymini
1. Faraday	constant	amount of charge per one mole of electrons.
2. 96,485	C/mol e-	Faraday's constant
3. Current	(ampere)	quantity of charge moving past a point in a circuit per second
4. galvanio	c cell	uses spontaneous chemical reaction to generate electricity
5. electrol	ysis	the process in which a chemical reaction is forced to occur at an electrode by an imposed voltage
6. oxidatio	on	loss of electrons (an increase in oxidation number)
7. reduction	on	gain of electrons (a decrease in oxidation number)
8. reducin	g agent	the substance containing the element that gets oxidized
9. oxidizi n	g agent	the substance containing the element that gets reduced
10. electrod	chemistry	the study of the interchange of chemical and electrical energy
11. galvani	c cell	a device in which chemical energy is changed to electrical energy (usually two half-cells) the cell potential is positive
12. salt brid	ge	a U-tube filled with an electrolyte or a porous disk in a tube connecting the two half-cells allows ions to flow between the two compartments. Keeps cell from having voltage drop to 0
13. cathode)	the electrode compartment in which reduction occurs (RED CAT)
14. anode		the electrode compartment in which oxidation occurs (AN OX)
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15.



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standard reduction potentials	the electropotential values corresponding to reduction half-reactions will all solutes at 1 M and all gases at 1 atms
16. battery	a galvanic cell or a group of galvanic cells connected in series source of direct current and provide portable power
17. electrolytic cell	uses electrical energy to produce chemical change (nonspontaneously)
18. electrolysis	involves forcing a current through a cell to produce a chemical change for which the cell potential is negative
19. ampere (amp)	unit of current = 1 coulomb of charge per second
20. electrochemical process	any conversion between chemical energy and electric energy
21. electrochemical cell	any device that converts chemical energy into electrical energy or electric energy into chemical energy; consists of redox reactions
22. half-cell	one type of voltaic cell in which either oxidation or reduction occurs
23. salt bridge	a tube containing a strong electrolyte, often potassium sulfate; contain agar; ; allows ions to pass from one half-cell to the other but prevents the solutions from mixing completely; half cells are connected by these
24. electrode	a conductor in a circuit that carries electrons to or from a substance other than a metal
25. battery	a group of voltaic cells connectted together
26. Mass increases	at the cathode because aqueous turn into solid
27. Mass decreases	at the anode because solid atoms become aqueous ions



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28. oxidation	loss of electrons
29. reduction	gain of electrons
30. electrolyte	a solution that contains ions and can carry a charge
31. redox reaction	name for an oxidation/reduction reaction