

Faraday's law of electrolysis

76. If 0.5 amp current is passed through acidified silver nitrate solution for 10 minutes. The mass of silver deposited on cathode, is (eq. wt. of silver nitrate = 108)
- (a) 0.235 g (b) 0.336 g
(c) 0.536 g (d) 0.636 g
77. The unit for the electric current is
- (a) Ohm (b) Volt
(c) Ampere (d) Coulomb
78. The quantity of electricity required to liberate 112cm^3 of hydrogen at STP from acidified water is
- (a) 0.1 Faraday
(b) 1 Faraday
(c) 965 Coulomb
(d) 96500 Coulomb
79. Which solution will show highest resistance during the passage of current
- (a) 0.05 N NaCl (b) 2 N NaCl
(c) 0.1 N NaCl (d) 1 N NaCl
80. 4 g of copper was dissolved in concentrated nitric acid. The copper nitrate solution on strong heating gave 5 g of its oxide. The equivalent weight of copper is
- (a) 23 (b) 32
(c) 12 (d) 20
81. The amount of silver deposited by passing 241.25 coulomb of current through silver nitrate solution is
- (a) 2.7 g (b) 2.7 mg
(c) 0.27 g (d) 0.54 g
82. When 1F of electricity is passed through acidulated water, O_2 evolved is
- (a) 11.2 dm^3 (b) 5.6 dm^3
(c) 22.4 dm^3 (d) 1.0 dm^3
83. Charge required to liberate 11.5 g sodium is
- (a) 0.5 F
(b) 0.1 F
(c) 1.5 F
(d) 96500 coulombs
84. In the electrolysis of water, one Faraday of electrical energy would evolve
- (a) One mole of oxygen
(b) One g atom of oxygen
(c) 8 g of oxygen
(d) 22.4 litres of oxygen
85. In a galvanic cell, the electrons flow from



- (a) Anode to cathode through the solution
(b) Cathode to anode through the solution
(c) Anode to cathode through the external circuit
(d) Cathode to anode through the external circuit
86. An electric current is passed through silver nitrate solution using silver electrodes. 10.79 g of silver was found to be deposited on the cathode if the same amount of electricity is passed through copper sulphate solution using copper electrodes, the weight of copper deposited on the cathode is
(a) 6.4 g (b) 2.3 g
(c) 12.8 g (d) 1.6 g
(e) 3.2 g
87. The law of electrolysis were proposed by
(a) Kohlraush (b) Faraday
(c) Nernst (d) Berthelot
88. How many atoms of calcium will be deposited from a solution of $CaCl_2$ by a current 0.25 mA following for 60 seconds
(a) 4.68×10^{18} (b) 4.68×10^{15}
(c) 4.68×10^{12} (d) 4.68×10^9
89. The number of coulombs required to reduce 12.3 g of nitrobenzene to aniline
(a) 115800 C (b) 5790 C
(c) 28950 C (d) 57900 C
90. During the process of electrolytic refining of copper, some metals present as impurity settle as 'anode mud'. These are
(a) Sn and Ag (b) Pb and Zn
(c) Ag and Au (d) Fe and Ni
91. A galvanic cell is set up from a zinc bar weighing 50g and 1.0 litre, 1.0M, $CuSO_4$ solution. How long would the cell run, assuming it delivers a steady current of 1.0 ampere
(a) 48 hrs (b) 41 hrs
(c) 21 hrs (d) 1 hr
92. On passing electric current through molten aluminium chloride, 11.2 litre of Cl_2 is liberated at NTP at anode. The quantity of aluminium deposited at cathode is (at. wt. of Al = 27)
(a) 9 g (b) 18 g
(c) 27 g (d) 36 g
93. An electric current is passed through silver voltameter connected to a water voltameter. The cathode of the silver voltameter weighed 0.108 g more at





the end of the electrolysis. The volume of oxygen evolved at STP is

- (a) 56 cm^3 (b) 550 cm^3
(c) 5.6 cm^3 (d) 11.2 cm^3
(e) 22.4 cm^3

94. During electrolysis of aqueous NaOH , 4 g of O_2 gas is liberated at NTP at anode, H_2 gas liberated at cathode is

- (a) 2.8 litres (b) 5.6 litres
(c) 11.2 litres (d) 22.4 litres

