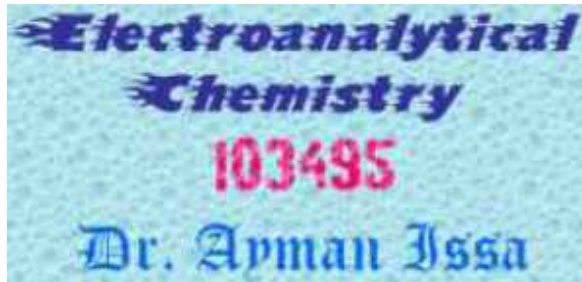


Chapter 22:

1.
 - a. 0.691 V
 - b. 0.598 V
 - c. 0.132 V
2.
 - a. 0.033 V
 - b. 0.998 V
 - c. 0.493 V
3. (according to conc)
 - a. -0.118 V
 - b. 0.771 V
4. (according to conc)
 - a. 0.145 V
 - b. 0.145 V
5.
 - a. -0.050 V
 - b. -0.13 V
 - c. 0.729 V
 - d. 0.143 V
6.
 - a. 1.25 V
 - b. 0.299 V
7.
 - a. 0.288 V
 - b. -0.599 V
 - c. -0.836 V
8.
 - a. -0.357 V
 - b. 1.23 V
 - c. 0.589 V
9. -0.90 V
10. -0.367 V
11. -0.037 V
12. -1.92 V
13. 1.85×10^{-4}
14. 1.0×10^{-15}
15. 0.123 V
16. -0.298 V
17. 0.357 V

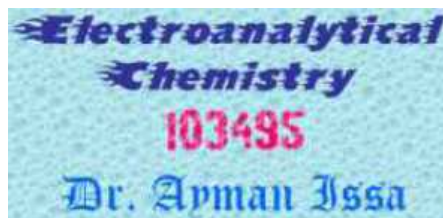


Chapter 23:

8.
 a. 0.517 V
 b. -1.089 V
 c. -0.598 V
 d. 0.493 V

9.
 a. 0.031 V
 b.
 c.
 d. 2.40

10.
 a. 0.366 V
 b.
 c.
 d. 9.62



11. 6.76
 12. -8.95
 13. 0.604
 14. 980
 15.

- a. 0.113 V
 b. 0.054 V
 c. -0.005 V

16. 3.13
 17. 1.0×10^{-16}
 18. 3.97×10^{-5}

19.

Vol Ce ⁺⁴	E (V) vs SCE	Vol Ce ⁺⁴	E (V) vs SCE
10	0.68	50.1	1.04
25	0.7	51	1.1
40	0.71	55	1.14
49	0.75	60	1.16
49.9	0.78		

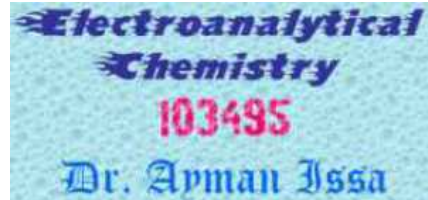
20.
 a. 2.05×10^{-9}
 b. 1.97×10^{-9} , 2.13×10^{-9}
 c. $\pm 3.9\%$

21.
 a. 5.226
 b. 5.004×10^{-6} , 6.831×10^{-6}
 c. -15.9%, +15.3%

22. $4.28 \times 10^{-4} \%$

Chapter 24:

1.
 - a. -0.120 V
 - b. 0.285 V
 - c. -0.405 V
 - d. -0.467 V
2. Absolute difference
 - a. 0.077 V
 - b. 0.097 V
 - c. 0.223 V
 - d. 0.216 V
 - e. 0.0582 V
3.
4.
5.
 - a. 0.432 V
 - b. 0.218 V
 - c. 0.085 V
6.
 - a. 2.95 min
 - b. 1.97 min
 - c. 0.984 min
7. 2.47% CCl_4 , 1.85% CHCl_3
8. 0.613%
9. 960 g/equiv
10. 33.7 μg



Chapter 25:

6.
a. -0.059 V
b. +0.059 V

7.

8.
a. 0.067 %
b. 0.13 %
c. 0.40 %

9.
a. 0.369
b. 0.346
c. 0.144
d. 0.314

10. 7.0×10^5

11.

12.
a. -0.260 V
b. -0.408 V
c. -0.615

13.

14.

