

APPENDIX A

ICP-AES and Chemical Method Analysis (Central Equipment Division, Faculty of Science, Prince of Songkla University).

The condition of ICP-AES (Perkin Elmer 4300 DV) for silver analysis

1. Wave length 328.068 nanometer
2. Delay time 35 s
3. Flow plasma 15 L/min
4. Auxiliary flow 0.20 L/min
5. Nebulizer flow 0.80 L/min
6. Pump flow rate 1.50 L/min
7. RF power 1300 watt
8. Nebulier back pressure 129. kPa
9. Instrument warm up 3 hours

The result of sample analysis

The calibration graph was plotted in the range of 0.00 to 1000 $\mu\text{g/L}$ with correlation coefficient of 0.999899.

Sample	Concentration ($\mu\text{g/L}$)					
	1 st	2 nd	3 rd	Mean	SD	%RSD
A	20850	20760	20900	20840	67.9	0.33
B	77850	78820	78960	78540	601.9	0.77
C	43760	43750	43790	43770	20.1	0.05

APPENDIX B

Values of t for various levels of probability (Skoog *et al.*, 2004)

Degree of Freedom	80%	90%	95%	99%	99.99%
1	3.08	6.31	12.7	63.87	637
2	1.89	2.92	4.30	9.92	31.6
3	1.64	2.35	3.18	5.84	12.9
4	1.53	2.13	2.78	4.60	8.61
5	1.48	2.02	2.57	4.03	6.87
6	1.44	1.94	2.45	3.71	5.96
7	1.42	1.90	2.36	3.50	5.41
8	1.40	1.86	2.31	3.36	5.04
9	1.38	1.83	2.26	3.25	4.78
10	1.37	1.81	2.23	3.17	4.59
15	1.34	1.75	2.13	2.95	4.07
20	1.32	1.73	2.09	2.84	3.85
40	1.30	1.68	2.02	2.70	3.55
60	1.30	1.67	2.00	2.62	3.46
∞	1.28	1.64	1.96	2.58	3.29

APPENDIX C

Presentations of this thesis

This research was poster presented by Asst. Prof. Dr. Pipat Chooto. In the topic of the Voltammetric determination of silver(I) using carbon paste electrode modified with 1,8-dihydroxyanthraquinone in 205th Meeting of the Electrochemical Society, 9-13 May 2004, Marriott Rivercenter, San Antonio, Texas, USA.

This work was as a poster presented by Mr. Noraphat Rannurags in The Postgraduate Education and Research Program in Chemistry Congress III, 9-12 May 2004, Jomtien Palm Beach Resort Pattaya, Chonburi, Thailand.

The presentation about electrochemistry of 29th Congress on Science and Technology of Thailand, 20-22 October 2003, Golden Jubilee Convention Hall, Khon Kean University, Thailand. Which was poster presented by Mr. Noraphat Rannurags in the topic of the Voltammetric determination of silver(I) using carbon paste electrode modified with 1,8-dihydroxyanthraquinone.

It was as a poster presented in The 2nd PSU Symposium on Graduate Research Conference, 12 March 2004, Graduate School, Prince of Songkla University, Thailand which presentd by Mr. Noraphat Rannurags.