

## **REFERENCES:**

1. EFCE Event No. 282, "Effluent Treatment In the Process Industries," IChemE Symposium Series No. 77, European Federation of Chemical Engineering Publication Series No. 31, Pergamon Press, 1983.
2. Metcalf & Eddy, Inc. "Wastewater Engineering, Treatment, Disposal, and Reuse," Third Edition, McGraw-Hill, Inc. 1991
3. Edmund B. Besseliere, "Industrial Waste Treatment," McGraw-Hill, Inc. 1952
4. DOE Interim National Waste Quality Standard for Malaysia.
5. Environmental Quality Act 1974, "Environmental Quality (Sewage and Industrial Effluents) Regulations 1978," 3rd schedule.
6. New Straits Times, Friday, May 26, 1995
7. China Press, Friday, May 26, 1995
8. Sin Chew Jit Poh (Malaysia), April 5, 1995
9. The Star, Tuesday, August, 15, 1995
10. A. K. Graham and H. L. Pinkerton, *Sewage And Industrial Wastes*, 24(2), 207-11, 1952.
11. David L. Ford, "Toxicity Reduction: Evaluation And Control, Water Quality Management Library-Volume 3," Technomic Publication, 1992.
12. James S. Whang, *Environ Prog*, 1(2), 110-113, 1982.
13. Anselm T. Kuhn and Robert Clarke, *J. Appl. Chem. Biotechnol.*, 26, 407-418, 1976.

14. L. Pawlowski, M. Kotowski, B. A. Bolto and McNeill, "Studies in Environment Science 23, Chemistry For Protection Of The Environment," Proceedings of an International Conference, Toulouse, France, Elsevier, 491-512, 19-25 Sept 1983.
15. Patterson, J. W., "Industrial Wastewater Treatment Technology," 2nd Edition, Stoneham, MA : Butterworths Publishers. 1985.
16. D. R. Gabe, "EFCE Event No. 282, Effluent Treatment In The Process Industries," IChemE Symposium Series No. 77, European Federation of Chemical Engineering Publication Series No. 31, Pergamon Press, 291-300, 1983.
17. Edmund B. Besslievre, "The Treatment of Industrial Wastes," New York, McGraw-Hill, Inc. 1969.
18. Frederick A. Lowenheim, "Electroplating," McGraw-Hill, 1978.
19. Denis Dickinson, "Practical Waste Treatment and Disposal," Applied Science Publishers, 1974, Chapter 2, 9.
20. Clifford, D., S. Subramonian and T. Sorg., *J. Environ. Sci. & Technol.*, 20(11):1072-1080, 1986.
21. U. S. EPA. 1981 "Control and Treatment Technology for the Metal Finishing Industry." U. S. EPA report no. 625/8-18-007, Industrial Environmental Research Laboratory, Cincinnati, Ohio.
22. Donnelly, R. G/, R. L. Goldsmith, K. J. McNulty and M. Tan., *Plating*, 61,432-442, 1974.
23. Stumm, W. and J. J. Morgan, "Aquatic Chemistry," 2nd ed. New York: John Wiley and Sons, 1981.

24. Korovin, N. V. ; Nukheli, M.; Konyukhova, I. A., *Elektrokhimiya*, 29(3), 410-412, 1993 (Russ). (*Chemical Abstracts* 119, 1993:126863c).
25. Kovalen V. V., Seider S. A., Borzenkova L. R., *Elektron. Obrab. Mater.* 2, 48-52, 1986. (Russ) (*Chemical Abstracts* 105, 1986:65789v).
26. Masahito Ishii and Minoru, US Patent no 3783114, 1974
27. Rogov, V. M.; Shvetsova, T. L., *Khim. Tekhnol. Vody*, 8(3), 22-25, 1986 (Russ). (*Chemical Abstracts* 105, 1986:158240z).
28. Brewster, M. D.; Passmore, R. J., *Environ Prog.*, 13(2), 143-8, 1994.
29. Solonetskii, V. G.; Gura, V. M., *Vodosnabzh. Sanit. Tekh.*, 1, 23-4, 1987. (Russ). (*Chemical Abstracts* 106, 1987:219041e).
30. Carl E. Janson, Robert E. Kenson, and Lawrence H. Tucker, *Envrion Prog.*, 1(3), 212-6, 1982.
31. Zhou, C. -D.; Chin, D. -T, *Plat. Surf. Finish.*, 81(6), 70-8, 1994. (*Chemical Abstracts* 121, 1994:189923j).
32. Birkett, J. D., J. B. Berkowitz, J. T. Funkhouser and J. I. Stevens, eds., "Electrolysis in Unit Operations for Treatment of Hazardous Industrial Wastes", Park Ridge, New Jersey: Noyes Data Corporation ,1978.
33. Markovac, V. and Heller, H. C., *Plat. Surf. Finish.*, 69, 1982.
34. The Electroflotation People, "Flotation for Effluent Treatment," Morgett Electrochemicals Ltd.
35. A. T. Kuhn, "Chemistry and Industry," 21 August 1971, 946-950.

36. Douglas Pearson and Joseph M. Shirley, *J. Appl. Chem. Biotechnol.*, 23, 101-9, 1973.
37. Ajmal, Mohammad; Sulaiman, Afsar M.; Khan, Akhtar Hussain, *Water, Air, Soil Pollut.*, 68(3-4), 485-92, 1993. (*Chemical Abstracts* 119, 1993:255910q).
38. G. A. Parks, and P. L. De Bruyn, *J. Phys. Chem.*, 66, 967-73, 1962.
39. Arthur I. Vogel, "A Textbook of Quantitative Inorganic Analysis," 3rd ed, Longmans, 125,166,1961.
40. Robert C. Weast, Ph. D., "Handbook of Chemistry and Physics," 50th ed., The Chemical Rubber Co., Ohio 1969.
41. Robert C. Weast, Ph. D., "CRC Handbook of Chemistry and Physics," 67th ed., The Chemical Rubber Co, 1986.
42. Sven Erik Jorgensen, "Studies in Environmental Science, Industrial Waste Water Management," Elsevier Scientific Publishing Company, 1979.
43. M. D. Brewster and R. J. Passmore, *Environ Prog*, 13(2), 143-148, 1994.
44. Meites, L., "An Introduction to Chemical Equilibrium and Kinetics." New York: Pergamon Press, 1981.
45. Stepanyan, I. S.; Polyakova, L. V. (USSR). *Prom-st. Arm.*, (1), 50-1, 1984 (Russ). (*Chemical Abstracts* 100, 1984:179657c).
46. V. S. Kublanovskii, A. V. Gorodyskii, and V. V. Pototskaya, *Elektrokhimiya*, 13(3), 368-372, 1977.
47. Mark M. Benjamin, Kim F. Hayes, James O. Leckie, *J. WPCF*, 54(11), 1472-81, 1982.

48. Douglas T. Walker, **United States Patent no 5045214, 1991.**
49. John Westall and Herbert Hohl, "Advance in Colloid and Interface Science," 12, 265-94, Elsevier Scientific Publishing Company, 1980.
50. Nyvlt, J. and O. Sohnle, "The Kinetics of Industrial Crystallization," Amsterdam: Elsevier, 1985.
51. Nyvlt, J., O. Sohnle, M. Matuchova and M. Broul, "The Kinetics of Industrial Crystallization," Amsterdam: Elsevier, 1985.
52. Khamskii, E. V., "Crystallization from Solution, Special Research Report," New York: Plenum Press, 1969.
53. McFadyen, P. and E. Matijevic., *J. Inorg. Nucl. Chem.*, 35:1883-1893, 1973.
54. Peter et al., G. D., M. J. Hayes and M. G. Hietze., "Chemical Separation and Measurements," Saunders Golden Sunburst Series. Philadelphia: W. B. Sauder Company, 1974.
55. Feitkecht, W. and P. Schindler, *Pure Appl. Chemistry*, 6(2):103-199, 1963.
56. Butler, J. N., "Ionic Equilibrium," Massachusetts: Addison-Wesley Publishing Company, Inc., 1964.
57. Morgan, J. J., "General Affinity Concepts, Equilibria and Kinetics in Aqueous Metals Chemistry, in Metals Speciation, Separation and Recovery," Patterson and Pasino, eds., Chelsea, Michigan: Lewis Publishers Inc., 1987.
58. Kenner, C. T. and R. E. O'Brien, "Analytical Separation and Determinations," New York: Macmillan, 1971.

59. DeHek, H., R. G. J. Stol and P. L. DeBrunn., *J Colloid & Int Sci*, 64(1): 72-89, 1978.
60. Britton, H. T. S., *J Chem Soc.*, 12: 2796-2807, 1925.
61. Snoeyink, V. L. and D. Jenkins. "Water Chemistry." New York: John Wiley and Sons, 1980.
62. Randolph, A. D. and M. A. Lasron, "Theory of Particulate Process," New York: Academic Press, 1971.
63. Walton, A. G., "The Formation and Properties of Precipitates," New York: John Wiley and Sons, 1967.
64. Nancollas, G. H. and N. Purdie., "The Kinetics of Crystal Growth," Chemical Society, Quarterly Reviews, 18, 1-21, 1964.
65. Nielsen, A. E., *Croatica Chemica Acta*, 42:319-333, 1970.
66. Leckie, J. et al., "Adsorption/Coprecipitation of Trace Elements from Water with Iron Oxyhydroxide," EPRI Final Report, No. CS-1513, Project 910-1, 1980.
67. Anderson, M. and A. Rubin., "Adsorption of Inorganics at Solid-Liquid Interfaces," Ann Arbor, MI: Ann Arbor Science Publishers, Inc., 1981.
68. Adamson, A. W., "Physical Chemistry of Surfaces," 3rd Ed. New York John Wiley and Sons, 1976.
69. Dzombak, D. and F. Morel., *J. Hydraulic Eng.*, 113:430, 1987.
70. Morel, F. M. M. et. al., "Adsorption Models: A Mathematical Analysis in the framework of General Equilibrium Calculations, in Adsorption of Inorganic at

Solid-Liquid Interfaces," M. Anderson, ed., Ann Arbor, Michigan: Lewis Publishers Inc., 1981.

71. Farley, J. et al., *J. Colloid and Int. Sci.*, 106:226, 1985.
72. Zheng, Yuanyang, *Shiyou Daxue Xuebao, Ziran Kexueban*, 17 (6), 105-10, 1993.
73. R. Veeraraghavan and R. P. Dambal, *J. Electrochemical, Soc. India*, 31:27-32, 1982.
74. Ivanenko, A. I.; Kharitonov, I. V.; Kharchenko, L. F.; Opritov, V. V., *Vodosnabzh. Sanit. Tekh.*, (4), 18-21, 1984 (Russ). (*Chemical Abstracts* 101, 1984:136332w).
75. Boltarovich, A. V.; Duda, Ya. V.; Tsipkalo, A. B.; Chernyak, N. V., *Tekhnol. Organ. Proizvod.*, (3), 47-8, 1982 (Russ). (*Chemical Abstracts* 97, 1982:97752k).
76. Kovalenko V. V., Yu. A., Otleto V. V., *Khim. Tekhnol. Vody*, 9(3), 231-5, 1987. (Russ) (*Chemical Abstracts* 107, 1987:120474g).
77. Nazaryan M. M., Kulskii L. A., Bunin N. I., *Vodosnabzh. Sanit. Tekh.*, 9, 20-1, 1986. (Russ) (*Chemical Abstracts* 106, 1987:72315m).
78. Tanji Hideo, Sasaki Tsutomu; Shiki Chosei; Horita Toshiharu, **Japan Kokai** 75 46598, 1975. (*Chemical Abstracts* 83, 1975:120443g).
79. V. S. Kublanovskii, *Teor. Eksp. Khim.* 11, 128, 1975.
80. Norio Sato, *Corrosion*, 45(5), 354-368, 1989.
81. Marcel Pourbaix, "Lectures on Electrochemical Corrosion," Plenum Press, New York-London, 1973.

82. Atkins, P. W., "Physical Chemistry," 4th Ed. New York: W. H. Freeman and Company, 1990.
83. A.I. Vogel; "A Test Book Of Quantitative Inorganic Analysis," 5th ed. ELBS, 1989.
84. R. S. Treseder, *Nace Corrosion Engineer's Reference Book*, Library of Congress Number-79-67175, 2nd printing, 1980.
85. C. Clark Westcott, "pH Measurements," Academic Press, 1978.
86. "Annual Book of ASTM Standards," ASTM D 1068-88a, D 1088-88, D 1687, D 1886.
87. Bernes, L., *Anal Chem.*, 38,1083, 1966.
88. Mostyn, R. A. and Cunningham, A. F., *Anal. Chem.*, 38, 121, 1966.
89. P. J. Belling., *Effluent And water Treatment Journal*, 9, 314-318, 332, 1969.
90. W. J. Price, "Analytical Atomic Absorption Spectrometry," Heyden and Son Ltd, 1974.
91. Asha Varma, Ph. D., F. A. I. C., "CRC Handbook of Atomic Absorption Analysis," Vol-1, CRC Press Inc., 1982.
92. G. F. Kirkbright and M. Sargent, "Atomic Absorption and Fluorescence Spectroscopy," Academic Press, 1974.
93. "Atomic Absorption Methods Manual for Flame Operation Volume 1," Part Number: 42208-01, June 1986, Thermo Jarrell Ash Corporation.
94. Herbert H. Ulig, "The Corrosion Handbook," New York John Wiley and Sons, 1948.

95. "Annual Book of ASTM Standards," ASTM G3-74, G5-72, G15-74, 1975.
96. Fair, G. M., J. C. Geyer, and D. A. Okun, "Water and wastewater Engineering," *Vol. 2*, Wiley, New York, 1968.
97. Stumm, W., and J. J. Morgan, *J. AWWA*, 54(8), 971, 1962.
98. Thomas, A. W., *Colloid Chemistry*, McGraw-Hill, New York, 1934.
99. Stumm, W., and C. R. O'Melia, *J. AWWA*, 60(5), 1968.
100. E. Matijevic, M. B. Abramson, R. H. Ottewill, K. F. Schulz, and M. Kerker, *J. Phys. Chem.*, 65, 1274, 1961.
101. Alan J. Rubin, "Chemistry of Wastewater Technology," Ann Arbor Science Publishers Inc., 1978.
102. Stumm, W., C. P. Huang and S. R. Jenkins, *Croat. Chim. Acta*, 42, 223, 1970.
103. Morgan, J. J., and W. Stumm, "In: Proc. Internat. Conf. Water Pollution Research," New York, Pergamon Press, 1965.
104. Stumm, W., H. Hohl and F. Dalang, *Croat. Chim. Acta* 48, 491, 1976.
105. Schindler, P. W., B. Fuerst, R. Dick and P. Wolf, *J. Colloid & Int. Sci.*, 55, 469, 1976.
106. Christina E. Cowan, John M. Zachara, and Charles T Resch, *J. Environ. Sci. & Technol.*, 25(3), 437-46, 1991.
107. Mark M. Benjamin, *J. Environ. Sci. & Technol.*, 17(11), 686-92, 1983.
108. Kevin J. Farley, David A. Dzombak, and Francois M. M. morel, *J. Colloid & Int. Sci.*, 106(1), 226-42, 1985.

109. Stuart A. Crosby, Douglas R. Glasson, Alan H. Cuttler, Ian Butler, David R. Turner, Michael Whitfield, and Geoffrey E. Millward, *J. Environ. Sci. & Technol.*, 17(12), 709-13, 1983.
110. Watanabe, Yoshihisa; Najiri, Naohiro, **Japan Kokai 76 49554, 1976.** (*Chemical Abstracts 85, 1976*:148614d).
111. Makarov, V. M; Indeikin, E. A.; Yusova, A. P.; Savitskaya, I. V.; Babanin, V. F.; Vasilev, S. V.; Derbeneva, L. G., *Khim. Tekhnol. Vody*, 6(1), 35-7, 1984. (Russ) (*Chemical Abstracts 100, 1984*:194395j).
112. Mark M. Benjamin, and James O. Leckie, *J. Colloid & Int. Sci.*, 83(2), 410-9, 1981.
113. Kathleen C. Swallow, David N. Hume, and Francois M. M. Morel, *J. Environ. Sci. & Technol.*, 14(11), 1326-31, 1980.
114. C. V. Schenck, J. G. Dillard, and J. W. Murray, *J. Colloid & Int. Sci.*, 95(2), 398-409, 1983.
115. Mark M. Benjamin, and James O. Leckie, *J. Colloid & Int. Sci.*, 79(1), 209-21, 1981.
116. P. Beverly P. Phipps, George R. Brubaker, "Corrosion Chemistry," ACS Symposium Series 89, American Chemical Society, 1979.
117. A. John Sedriks, "Corrosion of Stainless steels," The Corrosion Monograph Series, John Wiley & Sons, New York, 1979.
118. Donald Peckner, I. M. Bernstein, "Handbook of Stainless Steels," McGraw-Hill Book Company, 1977.

119. O. E. Barcia, O. R. Mattos, N. Pebere, and B. Tribollet, *J. Electrochem. Soc.*, *140*(10), 2827-32, 1993.