

REFERENCES

- 1) L.L. Sherier, R.A. Jarman and G.T. Burstein: Corrosion 3rd Edition, volume 1, p. 6, Butter worth- Heinemann, (1994).
- 2) P.R. Roberge: Handbook of Corrosion Engineering, p. 13, Mc Graw Hill, (1999).
- 3) P.R. Roberge: Handbook of Corrosion Engineering, p. 14, Mc Graw Hill, (1999).
- 4) F. Esmadi and J. Simm: Colloids Surf., 104 (1995) 265.
- 5) R. Wiston: Uhlig's Corrosion Handbook, 2nd Edition, p. 173, John Wiley and Sons Inc., (2000)
- 6) L.L. Sherier, R.A. Jarman and G.T. Burstein: Corrosion 3rd Edition, volume 1, P. 151, Butterworrth- Heinemann, (1994).
- 7) P.R. Roberge: Handbook of Corrosion Engineering, p. 839, Mc Graw Hill, (1999).
- 8) R.Wiston: Uhlig's Corrosion Handbook, 2nd Edition, p. 1093, John Wiley and Sons Inc., (2000).
- 9) P.R.Roberge: Handbook of Corrosion Engineering, p. 836, Mc Graw Hill, (1999).
- 10) P.R. Roberge: Handbook of Corrosion Engineering, p. 837, Mc Graw Hill, (1999).
- 11) R. Wiston: Uhlig's Corrosion Handbook, 2nd Edition, p. 1091, John Wiley and Sons Inc., (2000).
- 12) W. J. Lorenz and H. Fisher, in Proceeding of 3rd Int. Conger. On Metallic Corros. Moscow, 99 (1969).
- 13) H. Ertel and L. Horner, in Coomptes Rendus du 2e-Symposium European sur les Inhibiteurs de Corrosion, Annali University, Ferrara, N. S. Sez V. Supp1.4, 71 (1996).

- 14) A.I. Aitsybeeva, S.Z. Levin and A. P. Dorokhov, in Proceeding of Third European Symposium on Corrosion Inhibitors, Annali University, Ferrara, N. S. Sez V. Suppl. 501(1971).
- 15) L.P. Hammett," Physical Organic Chemistry" McGraw-Hillbook Co.New York (1940).
- 16) H.H. Jaffe, Chem. Revs., 53 (1953)191.
- 17) R.W. Taft, Jr."Steric Effect Inorganic Chemistry" M.S. Newman Ed., 99, Wiley and Sons, Inc. New York (1962).
- 18) J.P. Robert,"Molecular Orbital Calculation" Benjamin, New York (1962).
- 19) A.S. Fouda, M.N.H. Mousa, F.I. Taha and A.I.EL-Neanaa. Corros. Sci., 26 (1986) 719.
- 20) D.D.N. Singh and M.K. Banerjee: Corrosion. NACE, 42 (1986) 156.
- 21) B. Beverskog and I. Pugdomenech: Corros. Sci., 39 (1997) 969.
- 22) L.L. Shrier: Corrosion "Metal/Environment Reaction", Newnes-Butter Worth, London, 1(1977) 102.
- 23) M. Pourboux:"Atlas of Electrochemical Equilibria in Aqueous Solutions" (Oxford, U.K.), Pergammon Press, (1966) 333.
- 24) G.A. Dibari and J.V. Petrocelli: J. Electrochem. Soc., 112 (1965) 99.
- 25) A.C. Hart : J. Metal Fini., 19(1973) 332.
- 26) T.S. DeGromoby and L .L .Shrier: Electrochim. Acta, 11 (1966) 892.
- 27) N. Sato and G. Okamoto: J.Electrochem.Soc., 111 (1964) 897.
- 28) M. Keston: J.Electrochem.Soc., 119 (1972) 722.
- 29) C.J. Chatfield and L. L. Shrier: Corros.Sci.,12 (1972) 563.
- 30) A. Pigeaud: J. Electrochem.Soc., 122 (1975) 80.

- 31) J. Gregori, J.J. Garcia-Jareno and F. Vicente: *Electrochim. Acta*, 52 (2007) 4062.
- 32) L.A. Kamel, S.M. Roushdi and R. Abd Shahba: *Corros. Sci.*, 19 (1979) 417.
- 33) T.P. Hoar: *Trans. Inst. Metal Fin*, 39 (1962) 166.
- 34) M. Zamin and M. B.Ives: *J. Electrochem. Soc.*, 126 (1979) 470.
- 35) S.G. Real, J.R. Vilche and A J. Arvia: *Corros. Sci.*, 20 (1980) 563.
- 36) A. Saraby-Reintjes: *Electrochim.Acta*, 30 (1985) 387.
- 37) A. Saraby-Reintjes: *Electrochim.Acta*, 30 (1985) 403.
- 38) P. Delichere, A.H. Goff and N. Yu: *J.Electrochem. Soc.*, 133 (1986) 2106.
- 39) M. Keddam, H. Takenouti and N. Yu: *Corros.Sci.*, 27 (1987) 107.
- 40) M.R. Barbosa S.G. Real, J.R. Vilche and A.J. Arvia: *J. Electrochem. Soc.* 135 (1988) 1077.
- 41) M. Itagaki, H. Nakazawa, K. Watanabe and K. Noda: *Corros. Sci.*, 39,(1997) 901.
- 42) J.R. Kish, M.B. Ives and J.R. Rodda: *J.Electrochem.Soc.*, 147 (2000) 3637.
- 43) X. Cheng, H. Ma, S. Chen and Z. Yao: *Corros. Sci.*, 42 (2000) 299
- 44) F. Zucchi, M. Fonsati and G. Rrabanelli: *J. Appl Electrochem.*, 28 (1998) 441.
- 45) M. Iida and T. Ohtsuka: *Corros. Sci.*, 49 (2007) 1408.
- 46) S.S Abd El Rehim, S.M. Abd El Wahab, E.A. Abd El Meguid: *Surface and Coating Technology*, 29 (1986) 325.
- 47) Stupnisek and Karsulin: *Electrochim.Acta*, 29 (1984) 1339.

- 48) S.M. Abd El Haleem, M.G.A. Kheder and H.M. Mabrouk: Corros.Prev.& Control,30 (1983) 17.
- 49) W.A. Wesley: Trans.Instn. Metal Finish, 33 (1956) 452.
- 50) W.W. SELLERES and F.X. CARLIN: Plating, 52 (1956) 215.
- 51) E. Raub and A. Disam: Metalloberflache, 21 (1967)193.
- 52) R. Gressmann: Corros. Sci., 8 (1968) 325.
- 53) C.D. Stephens and R.C. Scarberry: NACE. Conf. Houston, Texass, Preprint (1969)10.
- 54) S.A. Watson: J. Metal Finish., 18 (1972) 16 and 36.
- 55) A.C.Hart: Trans.Inst.Metal Finish, 51 (1973) 69.
- 56) A.C. Hart and S.A. Watson: Metal Finish, 19 (1973) 216.
- 57) J.R. Vilche and A.J. Arvia: Corros.Sci., 15 (1975) 419.
- 58) B.Mac Dougall, D.F. Mitchell and M.J. Graham: J. Electrochem. Soc., 12(1980) 1248.
- 59) R.J.Smith, R.E.Hummel and J.R.Ambrose: Corros. Sci., 27 (1987) 815.
- 60) C.Y. Chao, Z. Szklarska-Smialowska and D.D. Mac. Donald: J. Electroanal. Chem., 131(1982) 289.
- 61) R.E. Hummel, R.J. Smith and E.D. Verink Jr: Corros. Sci., 27 (1987) 803.
- 62) J.M. Abd El Kader and A.M. Shams El Din: Br. Corros. J., 14 (1979) 40.
- 63) W. Visscher and E. Barendrecht: Electrochim. Acta, 25 (1980) 651.
- 64) A.J. Arvia and D. Posadas: "The Electrochemistry of the Elements", A.J. Bard, Editor, Marcel Dekker, Inc., New York, 3 (1975) 212.
- 65) A.I. Shchikov. Krasil and V.A. Andreeva: Zh. Fiz.Khim, 27 (1953) 389.

- 66) J.L. Weininger and M.W. Breitev: J. Electrochem. Soc., 110 (1963) 484.
- 67) D.E. Davies and Barker: Corrosion, 20 (1964) 47.
- 68) J.L. Weininger and M.W. Breitev: J. Electrochem.Soc., 111 (1964) 101.
- 69) Ling-Ying: Corrosion 23 (1967).
- 70) Yu. N. Chernuykh and A.A. Yakuvleva: Elektrokhiya, 6 (1970) 1671.
- 71) R.D. Armstrong, J.A. Harrison and H.R. Thirsk: Corros.Sci.,10 (1970) 679.
- 72) J.F. Wolf, L.S.R. Yeh and A. Damajanovic: Electrochim. Acta, 26 (1981) 409 ,811.
- 73) A.E. Bohe, J.R. Vilche and A.J. Arvia: J. Appl. Electrochem., 14 (1984) 645.
- 74) M. Grden and K. Klimek: J. Electroanal. Chem., 581 (2005) 122.
- 75) L.M.M. Desouza, F.P. Kong, F.R. Mclaronon and R.H. Muller: Electrochim. Acta, 42 (1997) 1253.
- 76) C.V.D'Alkaine and M.A. Santanna: J. Electroanal.Chem., 457 (1998) 5.
- 77) C.V.D'Alkaine and M.A. Santanna: J. Electroanal.Chem., 457 (1998) 13.
- 78) H.P. Leckie and H.H. Uhlig: J. Electrochem. Soc., 115 (1968) 791.
- 79) M. Datta and D. Landolt: : J. Electrochem.Soc., 111 (1971) 297.
- 80) H.H. Strehblow and B. Ti-Tze: Corros. Sci., 17 (1977) 461.
- 81) E.E. Abd El Aal: Corros. Sci., 45 (2003) 759.
- 82) B. MacDougall and M.J. Graham: Electrochim. Acta, 27 (1982) 1093.
- 83) R. Nishimura: Corrosion, 43 (1987) 486.

- 84) F. Lallemand, D. Auguste, C. Amato, L. Hevesi, J. Delhalle and Z. Mekhalif: *Electrochim. Acta*, 52 (2007) 4334.
- 85) A.G. Munoz and J.W. Schuitze: *Electrochim. Acta*, 49 (2004) 293.
- 86) Y. El-Etre, M. Abdallah and Z.E. El-Tantawy: *Corros. Sci.*, 47 (2005) 385.
- 87) A.V. Noskov, N.A.B agrovskaya, L.E. Shmukler and S.A. Lilin: *Protection of Metals*, 39 (2003) 424.
- 88) M.R. Barbosa, A.A. Bastos, J.J. Garcia-Jarenio and F. Vicente: *Electrochim. Acta*, 44 (1998) 957.
- 89) A.G. Munoz and M.E. Vela: *Corros. Sci.*, 47 (2005) 2293.
- 90) A.E. Mauer, D.W. Kirk and S.J. Thorpe: *Electrochim. Acta*, 52 (2007) 3505.
- 91) C.F. Zinola and A.M. Castro Luna: *Corros. Sci.*, 37 (1995) 1919.
- 92) V.B. Singh and R.N. Singh: *Trans. Mater., JIM.*, 38 (1997) 48.
- 93) A. Frignani, C. Monticelli and G. Trabanelli: *Br. Corros. J.*, 33 (1998) 71.
- 94) A.K. Mohamed, S.S. El Kaabl and A.S. Fouda: *Bull Korean Chem .Soc.*, 10 (1989) 6.
- 95) E. Khamis, F. Bellucci, R.M. Latanision and E.S.H. El Ashry: *Corrosion*, 47 (1991) 677.
- 96) D.D. Mac Donald, H. Brookes, M. Urquidi-Macdonald and M.V azquez: *Corrosion*, 55 (1999) 343.
- 97) Amarnath Maitra, Gurmeet, Singh and Ramesh Kumar aushik: *India. Proc. 8th Int. Cong. On Metallic Corrosion and Euro corr*, 81, Mainz, Germany, 2 (1981) 1239.
- 98) M. Abdallah and A.Y. El-Etre: *Port. Electrochim. Acta*, 21 (2003) 315.

- 99)** F. Lallemand, F.P lumier, J. Delhalle and Z.Mekhalif: J.Appl. Surf. Sci., 254 (2008) 3318.
- 100)** C. Wanger and W.Z. Traud: Electrochem.Soc., 44 (1938) 391.
- 101)** W.T. Denholm: Proc.1st. Australain Conf. Electrochem., 1st Sydney, Hobart, Australia 164 (1963).
- 102)** R.P. Frankenthal: J. Electrochem. Soc., 116 (1969) 1646.
- 103)** R.P. Framkenthal: J. Electrochem. Soc., 114 (1967) 542.
- 104)** A.G. Akimov, I.L. Rozenfeid, L.P. Kazanskii and G.V. Machavarianl:1zv.Akad.Nauk,SSSR.SerKhim.,1(1978) 1482.
- 105)** V.K. Gouda, M.G.A. Khedr and A.M. Shams EL Din: Corros. Sci., 7 (1967) 221.
- 106)** A.M. Shams El Din and M.G.A. Kheder: Corros. Sci., 12 (1972) 393.
- 107)** S.M .Abd El Haleem and S.S. Abd El Rehim: Revue. Roumaina de Chemie., 25 (1980) 493.
- 108)** B. Jegdic, D.M. Drazic and V.P. Popic: J. Serb. Chem. Soc.71 (2006) 543.
- 109)** E.E. Abd El-Aal: Corros.Sci., 50 (2008) 41.
- 110)** T. Kosec, I. Milosev and B. Pihlar: Appl. Surf. Sci., 253 (2007) 8863.
- 111)** D. Addari, B. Elsener and A. Rossi: Electrochim.Acta, 53 (2008) 8078.
- 112)** P.L. Cabat, F.A. Centellas and P.R. Loukili: Electrochim. Acta, 38 (1993) 2633.
- 113)** A. El-Sayed, F. Rashwan and F. El-Cheikh: Mater. Chem. & Phys., 46 (1996) 61.
- 114)** H.B. Velichenko, J. Portillo, X. Alcobe, M. Sarret and C. Muller: Electrochim. Acta, 46 (2000) 407.
- 115)** S.S.El-Egamy: Corros.Sci., 50 (2008) 928.

- 116)** U.R. Evans: "An Introduction to Metallic Corrosion" Arnold, London (1963) 65.
- 117)** D.M. Brasher: Nature, Lond., 193 (1962) 868.
- 118)** D.M. Brasher, J.G. Beynon, A.D. Mereer and J.E. Rhoades Brown: Proc 2nd Eur. Symp. Corrosion Inhibitors, Ferrara, (1965) 559 (Univ of Ferrara).
- 119)** A.M. Shams El Din and S.M. Abd El Haleem: Werkst. u Korros., 25 (1974) 571.
- 120)** T.P. Hoar and U.R. Evans: J. Chem. Soc., (1932) 2476.
- 121)** D.M. Brasher and A.D. Mercer: Br. Corros. J., 3 (1968) 120.
- 122)** A.D. Mercer and I.R. Jenkins: Br. Corros. J., 3 (1968) 130.
- 123)** A.D. Mercer, I.R. Jenkins and J.E. Brown: Br. Corros. J., 3 (1968) 136.
- 124)** D.M.Brasher, D.R.Rachenberg and A.D.Mercer: Br.Corros. J., 3 (1968) 144.
- 125)** S.M. Abd El Haleem and A. Abd El Aal: J. Chem.. Soc. Japan, 53 (1980) 1156.
- 126)** W.D. Robertson: J. Electrochem. Soc., 98 (1951) 94.
- 127)** M.J. Pryor and M. Cohen: J. Electrochem. Soc., 100 (1953) 203.
- 128)** M. Darrin: Ind. Eng. Chem., 38 (1946) 368.
- 129)** S. Matsuda and H.H. Uhlig: J. Electrochem. Soc., 111(1958) 165.
- 130)** E.V. Bogatyreva and Batezin: J. Appl. Chem., 8 (1945) 352.
- 131)** H.P.Leckie and H.H. Uhlig: J. Electrochem. Soc., 113 (1966) 1262.
- 132)** H.H. Uhlig and J.R. Gilman: Corrosion, 20 (1964) 289t.
- 133)** P.J. Anderson and M.E.Kocking: J. Appl. Chem., 8 (1945) 352.
- 134)** B. Kabanov, R. Burstien and A. Frumkin: Discuss, Farady. Soc., 1 (1947) 259.

- 135)** A. Hickling: Trans. Farady, Soc., 41(1945) 333.
- 136)** U.R. Evans: Trans. Farady, Soc., 18 (1922) 1.
- 137)** T.P. Hoar, D. Mears and G. Rothwell: Corros. Sci., 5 (1965) 279.
- 138)** H. Kaesche and N. Hackerman: J. Electrochem. Soc., 105 (1958) 191.
- 139)** I. Epelboin, P. Morel and H. Takenouti: J.Electrochem.Soc., 118 (1971) 1282.
- 140)** E.Mc. Cafferty and A.Z. Zettelemoyer: J. Phys. Chem., 71 (1967) 2452.
- 141)** P.J. Hillson and E.K. Ridal: Proc. Roy.Soc. (London), A.199 (1949) 295.
- 142)** L.J. Antropov: "Proceeding of the 1st International Congress on Metallic Corrosion", P.147 Butter Worth and Co. London (1967).
- 143)** C. Wagner and W. Travid: Z. Electrochem., 42 (1938) 39.
- 144)** I.A. Ammar, S. Darwish and M. Etman: Electrochim.Acta, 12 (1967) 485.
- 145)** B. Berg, K. Grijotheim, C. Krohn, Reneumann and T.T. Torkiep: Light Metal (edited by S.R. Leavitt) Proceeding of 105th Annual Meeting, 3 (1976).
- 146)** M. Kliskic, J. Radosevic and S. Gndic: J. Appl. Electrochim., 27 (1997) 947.
- 147)** M. Abdallah: Bull of Electrochem., 16 (2000) 258
- 148)** E. Blomgren, J.O.M. Bockris and C. Jesch: J. Phys. Chem., 65 (1961) 200.
- 149)** Y.M. Kolotyrkin: Corrosion, 19 (1963) 261.
- 150)** S.M. Abd El-Haleem and B.G. Ateya: Corros. Prev. & Control., 27 (1980) 16.

- 151)** T.N. Anderson, M.H. Ghandeheri, E. Feng and H. Eyring: J Electrochem. Soc., 124 (1977) 977.
- 152)** K.E. Heusler and L. Gaiser: J. Electrochem. Soc., 117 (1970) 762.
- 153)** N.G. Thompson and B.C. Syrett: Corrosion, 646 (1992) 48.
- 154)** F.M. Abd El-Wahab and A.M. Shams El Din: Br. Corros. J.,13 (1978) 39.
- 155)** S.M. Abd El-Haleem, S.S. Abd El Rehim, M. Shalby and A.M Azzam :Werkst. u. Korros., 27(1976) 630.
- 156)** R.S. Lillard, D.P. Butt, T.N. Taylor, K.C. Walter and M. Nastasi: Corros. Sci., 39 (1997) 1605.
- 157)** K. Schwabe and M.Berthold: J. Appl.Electrochem., 9 (1979) 171.
- 158)** I.Milosev and Metikos- Hukovic: J. Appl. Electrochem., 29 (1999) 393.
- 159)** H. Oranowska and. Szklarska- Smialowska: Corros. Sci. 16 (1976) 363.
- 160)** S.A. M.Refaey, F. Taha and T.H.A. Hasanin: Electrochim. Acta, 51(2006) 2942.
- 161)** H.P. Leckie and H.H. Vhliy: J. Electrochem. Soc., 62 (1958) 626.
- 162)** H.H. Vhliy and J.R. Gilman: Corrosion, 20 (1964) 289.
- 163)** S.M. Abd E l-Haleem: Werkst.U.Korros., 30 (1979) 631.
- 164)** P.M. Aziz and H.P. Godard: Corrosion Ind. Eng. Chem., 44 (1952) 179.
- 165)** U.R .Evans: Corrosion, 7(1951) 238.
- 166)** P.M. Aziz: Corrosion, 9 (1953) 85.
- 167)** W.M. Latimer: Oxidation Potentials, Practice-Hall, New Jersey (1952).

- 168)** I. Rosenfeld and W. Maximateochuk: Z. Physik. Chem., 215 (1960) 25.
- 169)** W.Schwenk and E. Brauns: Archive, Eisenhuttnw.,32(1975)387.
- 170)** A.Z. Foroulis and M.J. Thubriker: Werkst. u. Korros., 26 (1975) 230
- 171)** M.G. Akedr, F.M. Abd El Wahab and S.M. Abd El-Haleem: Bull Delosoc Chem. De France, (11-12)(1983)273.
- 172)** M. Abdallah, E.A. Helal and A.S. Fouda: Corros. Sci., 48 (2006) 1639.
- 173)** M. Abdallah: Port. Electrochim. Acta, 22(2004)161.
- 174)** H. Tsuge, N. Usuki, H. Maryome and H. Nogano: International Congress on Metallic Corrosion, Tronto, Canda, 4(1984)228.
- 175)** M.A .Stranick: Corrosion, 40 (1984) 296.
- 176)** H.H. Uhlig and R.W. Revie: Corrosion and Corrosion Control, p 69 (1962).
- 177)** H.B. Rudresh and S.M. Mayann: Surf. Technol., 6(1977)139.
- 178)** T. Murakawa, T. Keto, S. Nagura and N. Hackerman: Corros. Sci., 8(1968) 438.