

REFERENCES

- (1) Radziszewski B., *Ber.*, **15**, 2706 (1882).
- (2) Dittmer, K., Ferger, M.F. and Vgneaude, V. du, *Biol. J. chem.*, **164**, 19 (1946).
- (3) Weygand, F. and Bestmann, H.J. in "Newer methods of preparative organic Chemistry" vol. **III**, Academic Press. New York and London, p. 451. (1964).
- (4) Weidenhagen E.E.A., *Ber.*, 68,70,570 (1935), (1953), (1937).
- (5) Barraclough, P. Black, J.W. Cambridge, D. Capon, E. Cox, M. R. Firmin, D. Gerskowith, R. P. Giles, H. Glen, R. C. et al, *Eur. J. Med. Chem.*, **27**,207 (1992).
- (6) Buschouer, A. Sattler, H. J. and Schunack, W. *Chem. Ber.*, **117**, 2597 (1984).
- (7) Buschawer, A. Wegner, K. and Schunak, W. *Eur. J. Med. Chem. Chim. Ther.*, **17**, 505 (1982).
- (8) Buschauer, A. Sattler, H. J. and Schunak, W. *Arch. Pharm.*, **315**, 563 (1982).
- (9) Zigeuner, G. Lintschinger, W. B. Fuchsgruber, A. Kollman, K. *Monatsh. Chem.*, **107**, 171 (1976).
- (10) Wade, J. J. *U. S. US*, 4, 478, 835 (cl. 424-426; C07D 487/04), *Chem. Abst.*, **102**, 78907v. (1985).
- (11) Montgomery, J. A. and Temple, C. JR., *J. Am. Chem. Soc.*, **97**, 5238 (1957).
- (12) Robins R. K. and Lin., H.H. *J. Am. Chem. Soc.*, **79**, 490 (1957).
- (13) Boon, W.R. James W. C. M. and Ramage., G. R. *J. Chem. Soc.*, 99 (1951).
- (14) Rose, F. L. *J. Chem. Soc.*, 4124, (1954).
- (15) Brown, D. J. *J. Appl. Chem.*, **4**, 72 (1954).
- (16) Robins, R. K. Dille K. L. and Christensen, B. E. *J. Org. Chem.*, **19**, 930 (1954).
- (17) Robins, R. K. Dille K. L. C. H. Willits and B. E. Christensen, *J. Am. Chem. Soc.*, **75**, 263 (1953).
- (18) Bendich, A. Russell, P. J. Jv., and Fox, J. J. *J. Am. Chem. Soc.*, **76**, 6073 (1954).
- (19) Post, H. W. and Erichson, E.R. *J. Org. Chem.*, **2**,260 (1937).
- (20) Montgomery, J. A. *J. Am. Chem. Soc.*, **78**, 1928 (1956).
- (21) Neiman, Z. Bergmarin, F. and Lichtenberg, *J. Chem. Soc. (C)* 1822 (1971).
- (22) Townsend, L. B. and Robins, R. K. *J. Org. Chem.*, **27**, 990 (1962).
- (23) Jones, J. W. and Robins, R. K. *J. Am. Chem. Soc.*, **84**, 1914 (1962).

- (24) Deutsh, J. Neiman, Z. and Bergmann, *Org. Mass. Spectrometry*, 22 (1970).
- (25) Neiman, Z. and Bergmann, F. *Israel J. Chem.*, 6, 9 (1968).
- (26) Grenda, V. J. Jones, R. E. Gal, G. and Sletzinger, M. *J. Org. Chem.*, 30, 259 (1965).
- (27) Bergmann, F. and Kalmus, A. *J. Chem. Soc.*, 860 (1962).
- (28) Wooldridge, K. R. H. and Slock, R. *J. Chem. Soc.*, 1863 (1962).
- (29) Elion, G. B. *J. Org. Chem.*, 27, 2478 (1962).
- (30) Long, R. A. and Townsend, L. B. *Chem. Comm.*, 1087 (1970)
- (31) Sorolla, G. Segarra, J. T. and Brooks, M. H. *J. Med. Chem.*, 21, 344 (1978).
- (32) Brown, H. D. Matzuk, A. R. Ilus, I.R. Peterson, L. H. Harris, S. A. Sarett, L. H. Egerton, J. R. Yakstis, L. H. Campbell, W. C. and Cuckler, A. C. *J. Am. Chem. Soc.*, 83, 1765 (1961).
- (33) Kassel, R. L. Old, L. J. Carsuell, E. A. Fiore, N. C. and Hardy, W. D. *J. G. Exp. Med.*, 138, 925 (1973).
- (34) Traube, W. *Ber.*, 33, 1371, 3035 (1900).
- (35) Bendich, A. (in the nucleic acid) Chorgaff, E. and Davdson, J.N. Ed., *W York, N. Y.*, 81 (1955).
- (36) Lister L. H. (in the Purines) Wiley. *New York, N. Y.*, 38 (1971).
- (37) Sorolla, A. G. and Bendich, *J. Am. Chem. Soc.*, 81, 2515 (1959).
- (38) Sorolla, A. G. and Segarra, T. T. Townsend, L. Wiley, Ed, *New York, N. Y.*, 1977 9-Cf. H. Priewe and A. Poljack, *Chem. Ber.*, 88, 1932 (1955).
- (39) Prasad, R. N. and Robins, R. K. *J. Am. Chem. Soc.*, 79, 6401 (1957).
- (40) Fischer, E. *Ber.*, 30, 2400 (1897).
- (41) Fischer, E. *Ber.*, 31, 104 (1898).
- (42) Savasin, J. and Wegmann, E. *Helv. Chim. Acta.*, 7, 713 (1924).
- (43) Montequi, F. *Anales. Soc. Espan. Fis. Quim.*, 24, 731 (1926).
- (44) Montequi, F. *Anales. Soc. Espan. Fis. Quim.*, 25, 182 (1927).
- (45) Fischer, E. *Ber.*, 31, 431 (1898).
- (46) Baker, B. R. Schaub, R. E. and Joseph, J. P. *J. Org. Chem.*, 19, 638 (1954).
- (47) Adams, R. R. and Whitmone, F. C. *J. Am. Chem. Sco.*, 67, 1271 (1945).
- (48) Fischer, E. *Ber.*, 31, 542 (1898).
- (49) Enoki, K. Genda, Y. Fukui, T. *Japan. Kokai*, 76 06, 986 (Ci.C0D), *Chem. Abst.*, 84, 180299v (1898).
- (50) Sorolla, A. G. Fitt, P. S. McCravey, M. *Nucl. Acid Chem.*, 1, 335 (1978).
- (51) Brown, D. G. Cowden W. B. and Strekowski, L. *Aust. J. Chem.*, 35, 1209 (1982).

- (52) Brown, D. J. Lan S-B. and Mori, K. *Aust. J. Chem.*, **37**, 2093 (1984).
- (53) Brown, D. J. Cowden, W.B. Lan S-B. and Mori, K. *Aust. J. Chem.*, **37**, 155 (1984).
- (54) Dille, K. L. and Christensen, B. E. *J. Am. Chem. Soc.*, **75**, 263 (1953).
- (55) Bitterli, P. and Erlenmeyer, H. *Helv. Chim. Acta*, **34**, 838 (1951).
- (56) Robins, R. K. Dille, K. L. and Christensen, B. E. *J. Am. Chem. Soc.*, **75**, 263 (1953).
- (57) a- Beaman, A. G. *J. Am. Chem. Soc.*, **76**, 5633, (1954).
b- Cavalla; D. Hofer; P. Gehrig; A. Wintergest, P. (Euro-Celtique S. A.) PCT Int. Appl. Wo 95 00, 516 (C1. C07D473/34), Chem. Abst., **122**, 239459f (1995).
- (58) Foundation Wellcome, Ltd. *Brit.*, **887**, 409 (1962).
- (59) Robins, R. K. *J. Am. Chem.*, **80**, 6671 (1958).
- (60) Roblin, R. O. Jr., Lampen, J. O. English, J. P. Cde, Q. P. and Vaughn, J. R. *J. Am. Chem. Soc.*, **67**, 290 (1945).
- (61) Elion, G. B. and Hitchings, G. H. *J. Am. Chem. Soc.*, **76**, 4027 (1954).
- (62) Kruger, M. *Physiol. Z. Chem. Soc.*, 2060 (1954).
- (63) Kruger, M. *Physiol. Z. Chem. Soc.*, **18**, 446 (1894).
- (64) Ishidate, M. and Yuki, H. *Pharm. Bull. (Tokyo)*, **5**, 240 (1957).
- (65) Montgomery, J. A. Thomas, H. J. *J. Org. Chem.*, **40**, 1923 (1975).
- (66) Kyrudes, L.P.; Zienty, F. B.; Steahly, G. W.; Morrill, H. L. *J. Org. Chem.* 577. (1947).
- (67) Zimmerman, S. C.; Cramer, K. D.; Galan, A. A. *J. Org. Chem.* 1256 (1989).
- (68) Radinov, R.; Chanev, C.; Haimova, M. *J. Org. Chem.*, **56**, 4793 (1991).
- (69) Mandrichenko, B. E. Tkachenko, G. E. Mazur, I. A. Stebyuk, P. N. *Khim. Farm. Zh.*, **12**, 64 (1978).
- (70) Yamamoto, T. Imagaws, M. T. *J. Chem. Soc., Perkin. Trans.* **11**, 3003 (1990).
- (71) Gillespie, R. J. Tully, W. R. *Brit. Uk Pat. Appl. GB* 2, 170, 199(C1. C07 D487/04), Chem. Abst., **106**, 33094u (1987).
- (72) Novinson, T. Brien, D. E. O. and Robins, R. K. *J. H. Chem.*, **11**, 873 (1974).
- (73) Ochiai, E. and Sibata, K. *J. Pharm. Soc. Japan*, **59**, 185 (1931).
- (74) Guertr, P. Imbach, J. L. Jacquier, R. Mertin, P. and Maury, G. *Bull. Soc. Chim. France*, **3**, 1031 (1971).
- (75) Krutorskikh, G. N. Gornaeva, G. F. Vartanyan, L. P. Aleksander, Kh. L. M. and Pernikova, V.G. *Khim Fram. Zh.*, **20**, 839 (1986).
- (76) Stuttgart, T. H. *Chem. Ber.*, **88**, 1306 (1955).

- (77) Elion, G. B. Hitchings, G. Vanderwerff, U. H. *J. Biol. Chemistry*, **192**, 505 (1951).
- (78) Robins, R. K. Dille, K. J. Willits, C. H. and Christensen, B. E. *J. Am. Chem. Soc.*, **75**, 263 (1953).
- (79) Traube, W. *Ann.*, **331**, 77 (1904).
- (80) Baddiley, J. Lythgoe, B. Meneil, D. and Todd, A. R. *J. Chem. Soc.*, 383 (1943).
- (81) Bendich, A. Tinker, J. F. and Brown, G. B. *J. Am. Chem. Soc.*, **70**, 3112 (1948).
- (82) Elion, G. B. and Hitchings, G. H. *J. Am. Chem. Soc.*, **69**, 2553 (1947).
- (83) Robins, M. J. and Basom, G. L. *Can. J. Chem.*, **51**, 3161 (1973).
- (84) Gerster, J. E. Jones, J. W. and Robins, R. K. *J. Org. Chem.*, **28**, 945 (1963).
- (85) Ikehara, M. and Uno, H. *Chem. Pharm. Bull. Tokyo*, **13**, 221 (1965).
- (86) Zemlicka, J. and Sorm, F. *Collect. Czech. Chem. Commun*, **30**, 1880 (1965).
- (87) Twamoto, R. H. Acton, E. M. and Goodman, L. *J. Org. Chem.*, **27**, 3949 (1962).
- (88) Robis, M. J. and Robins, R. K. *J. Am. Chem. Soc.*, **86**, 3585 (1964).
- (89) Honjo, M. Furkawa, Y. Yoshioka, Y. Imada, A. Fujii, S. Ootsu, K. Kimura, T. Komeda, T. and Matsumoto, *Ann. Rep. Tekeda. Res. Lab.*, 271, 1968; *Chem. Abst.*, **70**, 97105u (1969).
- (90) Bennett, L. L. Jr., Brockman, R. W. Schnebli, H. P. Chumley, S. Dixon, G. J. Schabel, F. M. Jr., Dulmadge, E. A. Skipper, H. E. Montgomery, J. A. and Thomas, H. *J. Nature*, **205**, 1276 (1965).
- (91) Paterson, A. R. P. *Can. J. Biochem.*, **42**, 1415 (1964).
- (92) Hampton, A. Koppler, F. and Picker, D. *J. Med. Chem.*, **25**, 638 (1982).
- (93) Fleysher, M. H. *J. Med. Chem.*, **15**, 187 (1972).
- (94) Sowa, T. Ouchi, S. *Bull. Chem. Soc. Jpn.*, **48**, 2084 (1975).
- (95) Hoard, D. E. Ott, D. G. *J. Am. Chem. Soc.*, **87**, 1785 (1965).
- (96) Hampton, A. Koppler, F. Maeda, M. Patal, A. D. *J. Med. Chem.*, **21**, 1137 (1978).
- (97) Miller, J. P. Zmolek, W. W. *U. S. US.* 4, 369, 181 (Cl. 424-180; A61K31/70), *Chem. Abst.*, **98**, 161122e (1983).
- (98) Walton, E. *Fr.* 1,504, 091, (Cl. C07d), *Chem. Abst.*, **70**, 20308e (1969).
- (99) Calmane, L. Lidak, M. *Khim. Farm. Zh.*, **23**, 1129 (1989).
- (100) Lee, W. W. Martinez, A. P. Goodman, L. and Henry, D. W. *J. Org. Chem.*, **37**, 2924 (1972).

- (101) Iwamoto, R. H. Acton, E. M. and Goodman, L. *J. Med. Chem.*, **6**, 684 (1963).
- (102) Hitchings, G. H. and Elion, G. B. *U. S.*, **2**, 800(1957).
- (103) Doyama, K. Hama, F. Sakata, Y. and Misumi, S. *Terrahedron Lett.*, **22**, 4101 (1981).
- (104) Browne, D. T. Eisinger, J. and Leonard, N. J. *J. Am. Chem. Soc.*, **90**, 7302 (1968).
- (105) Lery, A. and Semonsky, M. *Ceskoslov. Fram.*, **7**, 402 (1958).
- (106) Nair, V. Young, D. A. *Synthesis*, **6**, 450 (1986).
- (107) Watanabe, K. A. Chu, C. K. Fox, J. J. *Eur. Pat. Appl. Ep.* 219, 829 (C1. C07H19/16), *Chem. Abst.*, **107**, 59409w (1987).
- (108) Srivasta, P. C. Revankar, G. R. Robins, R. K. *J. Med. Chem.*, **24**, 393 (1981).
- (109) Riest, E. J. Benitez, A. Goodman, L. Baker, B. R. Lee, W. W. *J. Org. Chem.*, **27**, 3274 (1962).
- (110) Robins, M. J. and Basom, G. L. *Can. J. Chem.*, **51**, 3161 (1973).
- (111) Iivamoto, R. H. Acton, E. M. and Goodman, *J. Org. Chem.*, **27**, 3949 (1962).
- (112) Fox, J. J. Wempen, I. Hampton, A. and Derr, I. L. *J. Am. Chem. Soc.*, **80**, 1669 (1958).
- (113) Johnson, J. A. Jr., and Thomas, H. J. *J. Am. Chem. Soc.*, **78**, 3863 (1957).
- (114) Brown, G. B. and Welky, V. *J. Biol. Chem.*, **204**, 1019 (1953).
- (115) Bendich, A. Russell, P. J. Jr., and Fox, J. J. *J. Am. Chem. Soc.*, **76**, 6073 (1954).
- (116) Friedkin, M. *Biochim. et Biophys. Acta*, **18**, 447 (1955).
- (117) Lukens, L. N. and Herrington, K. A. *Biochem. Et. Biophys. Acta*, **24**, 432 (1957).
- (118) Russell, P. B. Elion, G. B. Falco, E. A. and Hitchings, G. H. *J. Am. Chem. Soc.*, **71**, 2279 (1949).
- (119) Falco, E. A. Russell, P. B. and Hitchings, G. H. *J. Am. Chem. Soc.*, **73**, 4466 (1951).
- (120) Bahner, C. T. Stump, B. and Brown, M. E. *J. Am. Chem. Soc.*, **75**, 6301 (1953).
- (121) Kulikowski; T. Grynkieviez; G. (Instytut Formaceutyezny) *Pol. PL* 162, 708 (C1. C07D473/38), *Chem. Abst.*, **122**, 132852b (1995).
- (122) Elion, G. B. and Hitchings, G. H. *J. Am. Chem. Soc.*, **77**, 1676 (1955).
- (123) Klingsberg, E. and Papa, *J. Am. Chem. Soc.*, **73**, 4988 (1951).
- (124) Elion, G. B. Burgi, E. and Hitchings, G. H. *J. Am. Chem. Soc.*, **74**, 411 (1952).
- (125) Henze, H. R. and Smith, P. E. *J. Am. Chem. Soc.*, **65**, 1090 (1943).

- (126) Carrington, H. C. *J. Chem. Soc.*, 124 (1944).
- (127) Elion, G. B. and Hitchings, G. H. *J. Am. Chem. Soc.*, **69**, 2138 (1947).
- (128) Tomsons, U. Avots, A. and Kolesnikova, I. A. *Khim. Fram. Zh.*, **19**, 206 (1985).
- (129) a-Elion, G. B. Longe, W. H. and Hitchings, G. H. *J. Am. Chem. Soc.*, **78**, 217 (1956).
 b- Townsend; L. B. Drach; J. C. Renau. T. E. (Reagents of the University of Michigan) *PCT INT Appl. Wo* 95 23,151 (Cl. C07D487/04). *Chem. Abst.*, **124**, 29524p (1996).
- (130) Elion, G. B. Burgi, E. and Hitchings, G. H. *J. Am. Chem. Soc.*, **74**, 411, (1953).
- (131) Johns, C. O. *J. Biol. Chem.*, **21**, 319 (1915).
- (132) Andrews, K. J. M. Anand, N. Todd, A. R. and Topham, A. *J. Chem. Soc.*, 2490 (1949).
- (133) Brown, D. J. *J. Chem. Ind.*, **69**, 353 (1950).
- (134) Lofgren, N. and Luning, *Acta. Chem. Scand.*, **7**, 225 (1953).
- (135) Isay, O. *Ber.*, **39**, 250 (1906).
- (136) Allsebrook, W. E; Gulland, J. M.; Story L. F., "The Constitution of Purine Nucleosides. Part X. A New Synthesis of Xanthine and Attempted Synthesis Of Xanthine Glucosides and Glyoxalines," *J. Chem. Soc.* 232-236 (1942).
- (137) Structural Assignment of the Product of Methylation of 4-Nitro-5-styrylimidazole," *Struct. Chem.* **4**, 339-343 (1993).
- (138) Vaz, A. D. N.; Schoellmann G., "A Convenient and Simple Method for α -Chlorination of, and Conjugated Ketones," *J. Org. Chem.* **49**, 1286-1288 (1984).
- (139) Brogden, R. C. Heel, T.M. Speight and G.S. Avery, *Drugs*, **15**, 93 (1978).
- (140) Scholtysik, G. *Prog. Hypertension*, **2**, 257 (1991).
- (141) Rao, A. K. S. B. Rao, C. G. and Singh, B. B. *Synth. Commun.*, **21**, 427 (1991).
- (142) Lefler, E. and David, A. Stevens, *Antimicrobial Agents and Chemotherapy*, **25**, 450 (1984).
- (143) Cardin, C. J. Convery, M. A. Kavanagh, P. V. Lambert, M. T. B. McKenna, B. and McMurphy, B. *J. Chem. Res.*, 389(1992).
- (144) Karjalainen, A. J. Pohjala, E. K. and Kurkela, K. O. A. UK Patent 2,101,114 (1983); *Chem. Abstr.*, **99**, 38462j (1983); L. V. Kudzma and Turnbull, S. P. Jr, *Synthesis*. 1021 (1991); Aantaa, R. Kallio, A. and Virtanen, R. *Drugs of the future*, **18**, 49 (1993).
- (145) Guiraud, P.; Steiman, R.; Campos- Takaki, G. M. *Planta Med.* **60**, 373 (1994).

- (146) Lai, C. C.; Liu, T. J.; Ho, L. K.; Don, M. J.; Chau, Y. P. *Histol. Histopathol.* **13**, 89 (1998).
- (147) Planchon, S. M.; Wuerzberger-Davis, S. M.; Pink, J. J.; Robertson, K. A.; Bornmann, W. G.; Boothman, D. A. *Oncol. Rep.* **6**, 485 (1999).
- (148) Huang, L.; Pardee, A. B. *Mol. Med.* **5**, 711 (1999).
- (149) Bailly, C. *Curr. Med. Chem.* **7**, 39 (2000).
- (150) Koizumi, K., Miyamoto, Y., & Okano, N. *J. Pestic. Sci.* **19**, 147-154 (1994).
- (151) Kubuyama, N., Koizumi, K., Ohki, S. & Wakabayashi, K. *J. Pestic. Sci.* **23**, 268-74 (1998).
- (152) Schapter, W., Braun, R., Jakobi, H., Krautstrunk, G., Maerkl, M., Ort, O., Stark, H., Kern, M., Sanft, U. & Bonin, W. Ger. Offen. DE **19**, 741-654(Germany) (1999).
- (153) (a) Arthur Vogel, Text book of practical organic chemistry, 3rd edn, (ELBS), 439 (1973).
 (b) Euders E. in *Methondender Organischen chemie*, edited by Houben-Weyl-Muller, 4, Aufl Bd. X/3-s. 490, (Thieme, Stuttgart), (1965).
 (c) *Organic reactions*, Vol.X, (John Wiley and Sons, New York). 144 (1971).
 (d) Laduree D, Florentin D & Robba M J, *J Heterocycl Chem*, **17**, 1190 (1980).
- (154) El-Newaihy, M. F. and El-Hashash, M. A. *J. Chem. Soc., (C)* 2373 (1971).
- (155) El-Hashash, M. A. Mohamed, M. M. Sayed, F. A. and Abo-Baker, O. A. *Indian. J. Chem.* **19**(8) 271 (1980).
- (156) Ishii M., Iwahana M., Mitsui I., Minami M., Imagawa S., Tohogo A., Ejima A., *Anticancer Drugs*, **11**, 353-362 (2000).
- (157) C.; Lefert, H; Siripum chidbouree, S; Hamspons, S; Workman, D; Sigee, H.A.S. Epton, and A., Harbour, *J.Appl. Bact.* **78**, 97 (1995).
- (158) Rabie, K.A., "Studies on the separation of some Rare Earth Elements from Egyptian Monazite Sand", Ph.D., *Cairo University, Faculty of Science*, Egypt, (1996).
- (159) Ali. M.M., El- Alfy, S., Zayed. M.A., Rabie, K.A., El-Hazek, N.T. and Aly. H.F", separation of Cerium (III) from Egyptian Monazite by oxidation to cerium (IV), "Third Conf. On Peaceful uses of Atomic Energy, Damascus, 9-13 sept., pp., 355-360, (1996).
- (160) Rabie, K.A., Ali. M.M., Zayed, M.A., El-Hazek, N.T., and Ali, H.F., "Separation of Lanthanum from Egyptian Monazite by solvent Extraction method using D2EHPA/K Extractant" *Egypt. J.Anol Chem.*, Vol. **7** pp., 89-101, (1998).

- (161) Rabie, K.A., Ali. M.M., Zayed, M.A., El-Hazek, N.T., and Ali, H.F. "Separation of Praseodymium from Egyptian Monazite by solvent Extraction method using D2EHPA/K Extractant". Proceeding of the second international scientific conference (science, Development and Environment) , Al-Azhar University, Faculty of Science, Cairo, Egypt 17-20 March, PP 77-
- (162) Rabie. K.A., Ali. M.M., Zayed, M.A., El-Hazek, N.T., and Ali, H.F. "Separation of Neodymium from Egyptian Monazite by solvent Extraction Technique using D2EHPA/K solvent", Al-Azhar Bull. Sci. Vol.9, No.2 (Suppl.) , Dec., PP. 101-115, (1998).
- (163) Rabie, K.A., and Ali, M.M., "Recovery of highly pure Rare Earth by selective Dissolution"; 4th International conference on geochemistry, Alex. Univ., Egypt, 15-16 Sept., pp., 421-429, (1999).
- (164) Rabie. K.A, "Evaluation of yttrium content in Egyptian Beach Monazite mineral after its separation by solvent Extraction Method" Seminar on Nuel. Raw Materials and their Tech., Cairo, Egypt, 1-3 Nov. pp., 661-672 (1999).
- (165) Ali. H.F., Ali, M.M. and Rabie K.A., Separation of Sm, Eu and Gd in a group from Egyptian Monazite using solvent Extraction" , Elsevier Science Publisher B.V., Amsterdam, Hydrometallurgy, under publication, (2002).
- (166) Helaly, O.S., "Determination of semi Pilot plant for opening of Egyptian Monazite Applying The Sulphuric Acid Process And Separating Rare Earth Elements, Thorium And Uranium From Each Other", M.Sc., Faculty of Engraining, Cairo University, Egypt, (2003).
- (167) EL-Sayed, I.S., "Studies on the Separation of Europium From Middle Rare Earth Concentrate Derived From Egypt Black Sand Monazite", M. Sc., Faculty of science, Hewan University, Egypt, (2003).
- (168) Hammoud, N.S."Benificiation of Monazite, Zircon and Rutile from Egyptian Beach sands, Egypt. *J. Geol.*, **28**, No 1,79-89, (1984).
- (169) Gupta, C.K., and Krishnamurthy, N., "Extractive Metallurgy of Rare Earths"; International Materials Reviews, **37**, No., 5,PP., 197-298 (1992).
- (170) Moeller, T., "The Chemistry of the lanthanides", Chapman & Hall, London, 65, v (1963).
- (171) Gschneider, K.A., Jr., and Ellis, T.W., "Pure Rare Earth Metals for today's and Tomorrow's Advanced Technologies", Ames Lab., and the Dept. of Materials Science and Engineering. Iowa State University, Ames, Iowa, 50011-3020, USA, Edited by H.Y. Sohn, The Minerals, Metals and Materials Society (1994).