

REFERENCES

- (1) J.A. Wheeler, Phys. Rev. 52 (1937) 1083; 52 (1937) 1107.
- (2) a) D.Dennison, Phys. Rev. 57(1940) 454; 96 (1954) 378.
 b) K.Kameny, Phys. Rev. 103 (1956) 358.
- (3) a) J.K. Perring and T.H. Skyrme, Proc. Phys. Soc.69 (1956) 600.
 b) K.Wildermuth and Th. Kanellopoulos, Nucl. Phys. 7 (1958) 150; 9 (1958/9) 499.
 c) M.Bouten, IL Nuovo Cimento 26 (1962), 63.
- (4) a) J.M.Blat and V.F.Weisskopf, Theoretical Nuclear Physics, Chapman and Hall, Ltd., London (1952).
 b) S.A.Moszkowski, Encyclopedia of Physics, ed. S. Flugge, Vol. 39 (1957). Berlin; Springer.
 c) S.A. Moharram, Ph. D.Thesis. Cairo University (1975), unpublished.
- (5) a) G.C.Phillips and T.A.Tombrello, Nucl. Phys. 19 (1960) 555.
 b) I.Shimodaya, R.Tamagaki and H.Tanaka, Prog.Theor. Phys.27(1962). 793.
 c) J.Hiura and I.Shimodaya, Prog. Theor. Phys. 30 (1963) 585.
- (6) a) O. Endo, I.Shimodaya and J.Hiura, Prog. Theor. Phys. 31 (1964) 1157.

- b) Yu. A. Kuderyarov, Z. Matties, V.G. Nendatchin and Yu.F. Simirnov, Nucl. Phys. 65 (1965) 529.
 - c) D.M. Brink, Proc. Intern. School of Phys. "Enrico Fermi", Course 36, ed. by B. Fiolin (Acad. Press, N.Y. and London 1966) 247.
 - d) M. Bouten and P. van Leuven, Physica 34 (1967) 461.
- (7) a) H. Horiuchi and K. Ikeda, Prog. Theor. Phys. 40 (1968) 277.
- b) R. Tamagaki, Prog. Theor. Phys. 42 (1969), 469; 42 (1969) 748.
 - c) J. Hiura, Y. Abe, S. Sato and O. Endo, Prog. Theor. Phys. 42 (1969) 555.
 - d) Proc. Of the Intern. Conf. On Clustering Phenomena in Nuclei, Bochum (IAEA Vienna 1969).
- (8) a) A. Arima, Proc. Int. Conf. On Nuclear. Physics, Vol. 2, Munich (1973).
- b) J. Eichler and A. Fassler, Nucl. Phys. A 157, (1970) 166.
 - c) R. Rodk and W.R. Hering, Eds., Proc. Int. Conf. on Nucl. Reaction Induced by Heavy Ion., Heidelberg-Germany, (1969).
- (9) a) D.M. Brink, The alpha-particle model of light nuclei, Int. School of Phys. "Enrico Fermi" course XXXVI (1965).

- b) D.M. Brink, H.Friedrich, A.Weiguny and C.W.Wong,
Phys. Lett., Vol. 33B, no.2, (1970), 143.
- (10) a) H.Friedrich and A.Weiguny, Phys. Lett., Vol.35B,
No.2 (1971) 105.
b) N.DE Takacsy, Nucl. Phys., A 178 (1972) 469.
c) H.Fridrich, H.Hüsken and A.Weiguny, Phys. Lett.,
Vol. 38, no. 4 (1972) 199.
- (11) a) G.Michaud and E.W.Vogt, Phys. Lett., 30B (1969)
85.
b) E.W.Vogt, Proc. Int. Conf. On Properties of
Nucl. States, Montreal (Les. presses de l'Univ-
ersite de Montreal, 1969).
c) H.Friedrich, L. Satpathy and A.Weiguny, Phys.
Lett., 36B (1971) 189.
- (12) a) H.Hebach and P.Henneberg, Z. Phys. 216 (1968)
204.
b) J.R. Fulco and D.Y. Wong, Phys. Rev. 172 (1968)
1062.
c) J.L. Visschers and R.VAN Wageningen, Phys. Lett.,
Vol., 34B, no.6 (1971) 455.
- (13) a) J.N.Noble, Phys. Lett., 31B(1970) 253.
b) Yu. F.Smirnov, I.T.Obukhovsky and V.G. Nedatchin,
Nucl. Phys., Vol A 235, no. 2 (1974) 289.

- c) A.Osman, Phys. Rev. C, Vol. 17, no.1 (1978) 341.
- (14)a) S.Ali and A.R. Bodmer, Nucl. Phys. 80 (1966) 99.
b) L.D.Faddeev, Zh. Eksp. Teor. Fiz. 39, 1459 (1960)
(Phys. -JETP 12, 1014 (1961) .
c) C.Lovelace, Phys. Rev. 135, B1225 (1964).
- (15) Y.Abe, J.Hiura and H.Tanaka, Prog. Theor. Phys. 46
(1972) 199; 49 (1973) 800.
- (16) C.C.J.Roothaan, Rev. Mod. Phys. 23 (1951) 69.
- (17) a) W.Wadia, M.Khaled H.Hegab, Atomkerenergie 26,
(1975) 269.
b) S.Moharram, Ph. D.Thesis, Cairo University,
(1975), unpublished.
- (18) a) E.Inopin and B.J. Tishchenko, JETP (SOV. Phys.)
11 (1960) 840.
b) P.D.Kunz, Phys. Rev. 128 (1962) 1343.
c) W.Wadia, E.Inopin and M.Yusef, JETP (SOV. Phys.)
18 (1964) 802.
d) E.V. Inopin, A.A. Kresnin and B.J. Tishchenko,
SOV.J.Nucl. Phys. 2 (1966) 573.
- (19) a) H.Grannell, Phys. Rev. 148 (1966) 1107.
b) C.C.H.Leung and S.C.Park, Phys. Rev. 187 (1969)
1239.
c)L.J.McDonald and H.Überall, Phys. Rev. C1(1970)
2156.

- d) L.J.McDonald, H.Uberall and S.Numrich, Nucl. Phys., A147 (1970) 541.
- (20) a) S.Dutta and E.L. ToMusiak, Phys. Lett., Vol. 35B, no. 7 (1971) 554.
- b) G.E.Brown and A.M.Green, Nucl. Phys. 75 (1966)401;85 (1966) 87.
- (21) a) E.V.Inopin, V.K. Lukyanov, and Yu.S.Pol, Sov. J. Nucl. Phys., Vol. 19, no. 5 (1974) 507.
- b) Y.Abgrall, P.Gabinski and J.Labarsouque, Nucl. Phys., A 232 (1974) 235.
- c) W.Wadia and S.Moharram, Phys. Rev. C, Vol.12, no.6 (1975) 2050.
- (22) a) R.M.Mendez-Mareno, M.Moreno and T.H. Seligman, Nucl. Phys., A 221 (1974) 381.
- b) R.I.Dzhibuti and R.Ya. Kezerashvili, Sov.J.Nucl. Phys., Vol. 20, no. 2 (1975) 181.
- c) V.C. Aguilera-Navarro and O.Portilho, Annal.of Phys., 107 (1977) 126.
- (23) a) D.R.Harrington, Phys. Rev., 147 (1966) 685.
- b) T.K.Lim, Nucl. Phys. , A 158 (1970) 385.
- (24) a) K.Ananthanargyanan, M.Best and S.Das Gupta, Phys. Rev. C, Vol. 7, no.5 (1973) 1760.
- b) Y.Kawazoe, T.Tsukamoto and H.Matsuzaki, Prog. of Theor. Phys., Vol 51, no.2 (1974) 428.

- (25) N.Takigawa and A.Arima, Nucl. Phys., A 168 (1971) 593.
- (26) a) J.S.McCarthy I.Sick, Nucl. Phys., A 150 (1970) 631.
- b) R.Hofstadter, Ann. Rev. Nucl. Sci., Vol 7 (1957) 231.
- c) C.Ciofi Degli Atti, Nucl. Phys., A 129 (1969) 350.
- (27) a) T.W.Donnelly and G.E.Walker, Phys. Rev. Lett., 22 (1969) 1121.
- b) L.R.B.Elton and A.Swift, Nucl. Phys., A 94 (1967) 52.
- c) C.Ciofi Degli Atti and N.M. Kabachnik, In Proc. of The Third Int. Convergence on High Energy Phys. and Nucl. Structure, Columbia University, New York, 8-12 (1969) (Pergaman Press, Inc., New York, 1970).
- (28) Yu. N. Eldyshev, V.N.Lukyanov and Yu. S.Pol, Sov. J. of Nucl. Phys., Vol. 16, no. 3 (1973) 282.
- (29) a) D.M.Brink and A.Weiguny, Nucl. Phys., A 120 (1968).
- b) P.Goldhammer, Rev. Mod. Phys. 35 (1963) 40.
- (30) P.S.Hauge, S.A.Willimas and G.H.Duffey, Phys. Rev. C, Vol. 4, no. 4 (1971) 1044.

- (31) a) G.A.Savitskii, N.G.Afanas'ev, I.S. Gul'Karov,
V.M.Khvastunov, A.A.Khomich and N.G. Shevchenko,
Sov. J. of Nucl. Phys., Vol. 7, no.6 (1968)105.
b) P.S.Hauge and G.H.Duffey, Phys. Rev, 159 (1966)
1023.
- (32) D.L.Nordstrom, J.A. Tunheim, and G.H.Duffey, Phys.
Rev. 145 (1966) 727.
- (33) a) J.B.Bellicard et al., Phys. Rev. Lett., 19
(1967) 527.
b) R.F.Frosch et al., Phys. Rev. 174 (1968) 1380.
- (34) a) J.H. Fregeau, Phys. Rev., Vol. 104, no.1(1956)
225.
b) H.F.Eherenberg, R.Hofstadter, U.M.Berkhout,
D.G.Ravenhall, and S.E.Sobottka, Phys. Rev.,
Vol. 113, no.2 (1959) 666.
c) H.Grannell, Phys. Rev., Vol. 148, no.3 (1966)
1107.
- (35) a) R.H.Helm, Phys. Rev., vol. 104, no.5 (1956)
1466.
b) R.Lombard, P.Kossany-Demay and G.R.Bishop,
Nucl. Phys., 59 (1964) 398.
c) G.C.Li, M.R. Yearian and I.Sick, Phys. Rev.
C, Vol 9, no.5 (1974) 1861.

- (36) a) H.Crannell, R.Helm, H.Kendall, J.Oeser, and M. Yearian, Phys. Rev., Vol. 121, no.1(1961) 283.
- b) J.B.Bellicard, P.Bounin, R.F.Frosch, R.Hofstadter, J.S. McCarthy, F.J.Uhrhane, M.R.Yearian, B.C.Clark, R.Herman, and D.G.Ravenhall, Phys. Rev. Lett., Vol.19, no. 9 (1967) 527.
- (37) a) J.H.Fregeau and R.Hofstadter, Phys. Rev. 99, (1955) 1503.
- b) P.H.Endt and J.C.Kluyver, Revs. Modern Phys. 26, (1954) 94.
- c) F.Ajenberg and T.Lauritsen, Revs. Modern Phys. 24, (1952) 321.
- (38) R.Hofstadter, Revs. Modern Phys. 28, (1956) 214.
- (39) R.Herman and R.Hofstadter, High-Energy Electron Scattering Tables, Stanford University Press, Stanford, California, 1960.
- (40) a) A.Gray, T.M.Macrobert, A Treatise on Bessel Functions and Their Applications to Physics, (Macmillan and Co., Limited, London, 1931).
- b) J.B.Marion and F.C.Young, Nucl. Reaction Analysis Graphs and Tables, (North-Holland Publishing Company-Amsterdam, 1968).

- c) B.Spain and M.G.Smith, Functions of Mathematical Physics, (Van Nostrand Reinhold Company, London, 1970).
- (41) a) H.Bateman, Tables of Integral Transforms, Vol. 2 (McGraw - Hill Book Company, Inc. 1954).
b) I.S.Gradshteyn/I.M.Ryzhik, Table of Integrals Series and Products, (Academic Press New York and London, 1965).
- (42) W.T.Sharp, The Quantum Theory of Angular Momentum, (Chalk River, Ontario, 1958).
- (43) a) A.Messiah, Quantum Mechanics, Vol. 2, (North-Holland Publishing Company Amsterdam 1966).
b) A.S.Davydov and D.Ter Haar, Quantum Mechanics (Pergamon Press, Oxford. New York Toronto. Sydney. Paris. Frankfurt, 1973).
- (44) M.E.Rose, Elementary Theory of Angular Momentum (John Wiley & Sons, Inc., New York, 1957).
- (45) W.Heitler, The Quantum Theory of Radiation, 3 rd ed., (Oxford University Press, Oxford, England, 1954).
- (46) H.Semat and J.R.Albright, Introduction to Atomic and Nuclear Physics, 5 th ed., (London, Chapman and Hall, 1973).

- (47) L.I.Sciff, Quantum Mechanics, 2nd ed.(McGraw-Hill Book Company, Inc., New York, 1955).
- (48) a) G.Ripka "Advances in Nuclear Physics" Vol. 1 (1968) 183-259.
b) ----- "Lectures in Theoretical Physics" Trieste, 1967, G.Ripka Ph.D.
- (49) Y.Horikawa, Prog. Theor. Phys., 47 (1972) 867.