Table 17.19 from (1982AJ01): States of ^{17}F from ^{14}N(^{3}He, γ) [a]

$E(^{3}\text{He})$ (MeV)	$\Gamma_{\text{c.m.}}$ (MeV)	Res. in	$(2J+1)\Gamma_{^{3}\text{He}}\Gamma_{\gamma}$ (keV^{2})	E_{x} (MeV)
(4.5) [b]	1.0 ± 0.3	γ_1, α [c]	32 ± 20	(19.5 ± 0.2)
5.2	1.07 ± 0.16	γ_2	63 ± 26	20.1 ± 0.2
(5.4) [b]	1.2 ± 0.4	γ_0	46 ± 32	(20.2 ± 0.3)
5.6	0.7 ± 0.1	γ_1	33 ± 11	20.4 ± 0.1
6.6	0.9 ± 0.1	γ_1	74 ± 18	21.3 ± 0.1
(7.8) [b]	2.0 ± 0.5	γ_0	260 ± 140	(22.2 ± 0.3)

[a] (1981WA1R). See also (1979CH2B, 1980CHZF). See, however, (1972MO39).

[b] Uncertain: J. Lowe, private communication.

[c] See reaction 6.

A = 17: 1982 References from (1982AJ01)

1961BA10 F.De S. Barros, P.D. Forsyth, A.A. Jaffe and I.J. Taylor, Proc. Phys. Soc. (London) 77 (1961) 853

1963SE14 B.E. Segel, P.P. Singh, R.G. Allas and S.S. Hanna, Phys. Rev. Lett. 10 (1963) 345

1964AL11 T.K. Alexander, C. Broude and A.E. Litherland, Nucl. Phys. 53 (1964) 593

1964BE15 J.A. Becker and D.H. Wilkinson, Phys. Rev. 134 (1964) B1200

1964WA1B Wachter, Phys. Rev. 135 (1964) B1180

1965HA05 V.P. Hart, E. Norbeck and R.R. Carlson, Phys. Rev. 137 (1965) B17

1966AL10 D.E. Alburger, A. Gallmann, J.B. Nelson, J.T. Sample and E.K. Warburton, Phys. Rev. 148 (1966) 1050

1966KE16 I. Kelson and G.T. Garvey, Phys. Lett. 23 (1966) 689

1966MC05 R.L. McGrath, Phys. Rev. 145 (1966) 802

1968DA05 C.N. Davids, Nucl. Phys. A110 (1968) 619

1969AD02 E.G. Adelberger, A.B. McDonald and C.A. Barnes, Nucl. Phys. A124 (1969) 49

1969AN06 J.D. Anderson, S.D. Bloom, C. Wong, W.F. Hornyak and V.A. Madsen, Phys. Rev. 177 (1969) 1416

1969BA17 K. Bahr, T. Becker, R. Jahr and W.R. Kuhlmann, Nucl. Phys. A129 (1969) 388

1969DE06 C. Detraz and H.H. Duhm, Phys. Lett. B29 (1969) 29

1969GA05 A. Gallmann, F. Jundt, E. Aslanides and D.E. Alburger, Phys. Rev. 179 (1969) 921

1969LU07 C.C. Lu, M.S. Zisman and B.G. Harvey, Phys. Rev. 186 (1969) 1086

1969SC34 H.F. Schaefer, III, R.A. Klemm and F.E. Harris, Phys. Rev. 181 (1969) 137.

1970BA55 P.H. Barker, P.M. Cockburn, H.P. Seiler and P. Marmier, Phys. Rev. Lett. 25 (1970) 1350

1970KN01 A.R. Knudson and F.C. Young, Nucl. Phys. A149 (1970) 323

1970MC02 A.B. McDonald, E.G. Adelberger, H.B. Mak, D. Ashery, A.P. Shukla, C.L. Cocke and C.N. Davids, Phys. Lett. B31 (1970) 119

1971AJ02 F. Ajzenberg-Selove, Nucl. Phys. A166 (1971) 1

1971AL09 B.J. Allen and R.L. Macklin, Phys. Rev. C3 (1971) 1737

1971GO40 N.B. Gove and M.J. Martin, Nucl. Data Tables A10 (1971) 205

1971HA05 J.C. Hardy, J.E. Esterl, R.G. Sextro and J. Cerny, Phys. Rev. C3 (1971) 700

1971TO08 I.S. Towner, E.K. Warburton and G.T. Garvey, Ann. Phys. (N.Y.) 66 (1971) 674

1972AL42 D.E. Alburger and D.H. Wilkinson, Phys. Rev. C6 (1972) 2019

1972AN21 B.D. Anderson, D.E. Velkley and H.B. Willard, Phys. Rev. C6 (1972) 1513

1972LE01 M.-C. Lemaire, M.C. Mermaz and K.K. Seth, Phys. Rev. C5 (1972) 328

1973AD02 E.G. Adelberger, A.B. McDonald, C.L. Cocke, C.N. Davids, A.P. Shukla, H.B. Mak and D. Ashery, Phys. Rev. C7 (1973) 889

1973BI01 H.G. Bingham, H.T. Fortune, J.D. Garrett and R. Middleton, Phys. Rev. C7 (1973) 57

1973FO11 J.L. Fowler, C.H. Johnson and R.M. Feezel, Phys. Rev. C8 (1973) 545

1973JO01 C.H. Johnson, Phys. Rev. C7 (1973) 561; Erratum Phys. Rev. C8 (1973) 851

1973MO1C Mo, Blue and Weller, Nucl. Phys. A197 (1973) 290

1973PI09 M. Pignanelli, J. Gosset, F. Resmini, B. Mayer and J.L. Escudie, Phys. Rev. C8 (1973) 2120

1973PO11 A.R. Poletti and J.G. Pronko, Phys. Rev. C8 (1973) 1285

1973RO34 C. Rolfs, Nucl. Phys. A217 (1973) 29

1973SC26 P. Schumacher, N. Ueta, H.H. Duhm, K.-I. Kubo and W.J. Klages, Nucl. Phys. A212 (1973) 573

1974BO05 J.D. Bowman, A.M. Poskanzer, R.G. Korteling and G.W. Butler, Phys. Rev. C9 (1974) 836

1974DA23 S. Dahlgren, P. Grafstrom, B. Hoistad and A. Asberg, Nucl. Phys. A227 (1974) 245

1974FI1D D. Fick, Nukleonika 19 (1974) 693.

1974MA12 J.A. Macdonald, J. Cerny, J.C. Hardy, H.L. Harney, A.D. Bacher and G.R. Plattner, Phys. Rev. C9 (1974) 1694

1974MI21 T. Minamisono, Y. Nojiri, A. Mizobuchi and K. Sugimoto, Nucl. Phys. A236 (1974) 416

1974RO27 D.W.O. Rogers, J.A. Becker, T.K. Alexander, N. Anyas-Weiss, T.A. Belote, S.P. Dolan, N.A. Jelley and W.L. Randolph, Nucl. Phys. A226 (1974) 424

1974RO28 D.W.O. Rogers, N. Anyas-Weiss, J.A. Becker, T.A. Belote, S.P. Dolan and W.L. Randolph, Nucl. Phys. A226 (1974) 445

1974SK02 B.M. Skwiersky, C.M. Baglin and P.D. Parker, Phys. Rev. C9 (1974) 910

1974SW04 Z.E. Switkowski, R.M. Wieland and A. Winther, Phys. Rev. Lett. 33 (1974) 840

1974TH01 C. Thibault and R. Klapisch, Phys. Rev. C9 (1974) 793

1975BE44 E. Bellotti, E. Fiorini, P. Negri, A. Pullia, L. Zanotti and I. Filosofo, Nuovo Cim. A29 (1975) 106

1975BE56 W. Benenson, Nukleonika (Poland) 20 (1975) 775

1975BI14 B. Bilwes, R. Bilwes, J.L. Ferrero, A. Garcia and V. Martinez, J. Phys. (Paris) 36 (1975) 1055

1975FI1B Firk et al., Nucl. Cross Sections and Tech., Pt. II, Wasington, D.C. 1975 (Wash., D.C., Nat. Bur. Standards 1975) p. 875; Phys. Abs. 23088 (1977)

1975FO16 H.T. Fortune, L.R. Medsker, J.D. Garrett and H.G. Bingham, Phys. Rev. C12 (1975) 1723

1975HA06 M.N. Harakeh, P. Paul and K.A. Snover, Phys. Rev. C11 (1975) 998

1975HA07 M.N. Harakeh, P. Paul and P. Gorodetzky, Phys. Rev. C11 (1975) 1008

1975JE02 N.A. Jelley, J. Cerny, D.P. Stahel and K.H. Wilcox, Phys. Rev. C11 (1975) 2049

1975NA15 K.G. Nair, H. Voit, C.W. Towsley, M. Hamm, J.D. Bronson and K. Nagatani, Phys. Rev. C12 (1975) 1575

1975RE15 W.N. Reisdorf, P.H. Lau and R. Vandenbosch, Nucl. Phys. A253 (1975) 490

1975ZI1A Zimmerman, Fowler and Caughlan, OAP-399 (1975)

1976AL02 D.E. Alburger and D.H. Wilkinson, Phys. Rev. C13 (1976) 835

1976BA41 K. Bangert, U.E.P. Berg, K. Wienhard and H. Wolf, Z. Phys. A278 (1976) 295

1976BA55 H. Bando and E.M. Krenciglowa, Nucl. Phys. A273 (1976) 95

1976BI1A A. Billoire and M. Chemtob, Phys. Lett. B64 (1976) 389

1976BO1M Bouvier and Weibel, Arch. Sci. (Geneva) 29 (1976) 163

1976CA28 G. Calvi, S. Cavallaro, R. Potenza, F. Riggi and C. Spitaleri, Lett. Nuovo Cim. 17 (1976) 467

1976CH04 C.C. Chang, E.M. Diener and E. Ventura, Nucl. Phys. A258 (1976) 91

1976CI1A Cierjacks, in Lowell Conf. Conf-760715-P2 (1976) 893

1976CO29 S.R. Cotanch and C.M. Vincent, Phys. Rev. C14 (1976) 1739

1976DU04 J.L. Durell, P.J.A. Buttle, L.J.B. Goldfarb, W.R. Phillips, G.D. Jones, B.W. Hooton and M. Ivanovich, Nucl. Phys. A269 (1976) 443

1976EN02 H.D. Engelhardt, C.W. Lewis and H. Ullrich, Nucl. Phys. A258 (1976) 480

1976FU06 G.H. Fuller, J. Phys. Chem. Ref. Data 5 (1976) 835

1976GU14 G. Guillaume, B. Rastegar, P. Fintz and A. Gallmann, Nucl. Phys. A272 (1976) 338

1976HI09 F. Hinterberger, P. Von Rossen, B. Schuller, J. Bisping and R. Jahn, Nucl. Phys. A263 (1976) 460

1976IN04 T. Inoue and S. Tanaka, J. Inorg. Nucl. Chem. (GB) 38 (1976) 1425

1976JE1A Jeukenne, Lejeune and Mahaux, in Lowell Conf., Conf-760715-P1 (1976) 451

1976JO1B Joglekar, Ann. Phys. 101 (1976) 433

1976KI10 P. Kitching, C.A. Miller, D.A. Hutcheon, A.N. James, W.J. McDonald, J.M. Cameron, W.C. Olsen and G. Roy, Phys. Rev. Lett. 37 (1976) 1600

1976KI1F Kirk, in Lowell Conf., CONF-760715-P1 (1976) 389

1976LE1F Lefort, Rept. Prog. 39 (1976) 129

1976LE26 M. LeMere, Y.C. Tang and D.R. Thompson, Phys. Rev. C14 (1976) 1715

1976LE27 H.C. Lee, F.C. Khanna, M.A. Lone and A.B. McDonald, Phys. Lett. B65 (1976) 201

1976LI01 T.K. Li, D. Dehnhard, R.E. Brown and P.J. Ellis, Phys. Rev. C13 (1976) 55

1976MC11 A.B. McDonald, T.K. Alexander and O. Hausser, Nucl. Phys. A273 (1976) 464

1976MC1G McGrory, in 1974 Gamma Ray Trans. Prob. (U. 3F Delhi Press, 1976) 469

1976MO03 T. Motobayashi, I. Kohno, K. Katori, M. Yoshie, T. Ohi and H. Kamitsubo, Phys. Rev. Lett. 36 (1976) 390

1976NA09 K.G. Nair, K. Nagatani and H. Voit, Phys. Rev. Lett. 36 (1976) 1293

1976NO1C Norgaard and Fricke, Astron. Astrophys. 49 (1976) 337

1976OF1A R. Offermann, W. Ey and H. Kummel, Nucl. Phys. A273 (1976) 349

1976OH05 H. Ohm, W. Rudolph and K.-L. Kratz, Nucl. Phys. A274 (1976) 45

1976RA36 E. Ramstrom and T. Wiedling, Nucl. Phys. A272 (1976) 259

1976RO1T Rolfs, Rodney and Winkler, in At. Masses Fund. Constants, Eds. Sanders & Wapstra (Plenum Press, 1976) 60

1976SA1H H. Sato, Nucl. Phys. A269 (1976) 378

1976SL2A I. Slaus, in Lowell Conf., CONF-760715-P1 (1976) 272

1976ST22 A. Strazzeri, Nuovo Cim. A34 (1976) 229; Erratum Nuovo Cim. A41 (1976) 592

1976WE21 G.D. Westfall and S.A.A. Zaidi, Phys. Rev. C14 (1976) 610

1976ZE04 A.F. Zeller, M.E. Williams-Norton, R.J. Puigh, G.E. Moore, K.W. Kemper and G.M. Hudson, Phys. Rev. C14 (1976) 2162

1977AJ02 F. Ajzenberg-Selove, Nucl. Phys. A281 (1977) 1

1977AL18 D.J. Albert, A. Nagl, J. George, R.F. Wagner and H. Uberall, Phys. Rev. C16 (1977) 503

1977AL20 D.E. Alburger, Phys. Rev. C16 (1977) 889

1977AN12 G.S. Anagnostatos, Atomkernenergie 29 (1977) 207

1977AN1L Ando, Bando and Nagata, Prog. Theor. Phys. 57 (1977) 1303

1977AN21 I. Angeli and M. Csatlos, Nucl. Phys. A288 (1977) 480

1977AR06 A.G. Artukh, G.F. Gridnev, V.L. Mikheev and V.V. Volkov, Nucl. Phys. A283 (1977) 350

1977AU1E Audouze, in CNO Isotopes in Astrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 3

1977AZ01 G. Azuelos, J.E. Kitching and K. Ramavataram, Phys. Rev. C15 (1977) 1847

1977AZ02 G. Azuelos and J.E. Kitching, Nucl. Phys. A285 (1977) 19

1977BA1N D. Baye, J. Deenen and Y. Salmon, Nucl. Phys. A289 (1977) 511

1977BA3P A. Barroso, Nucl. Phys. A281 (1977) 267

1977BA44 L.K. Batist, E.E. Berlovich, K.A. Mezilev and Y.N. Novikov, Yad. Fiz. 25 (1977) 1140; Sov. J. Nucl. Phys. 25 (1977) 605

1977BR01 R. Brockmann and M. Dillig, Phys. Rev. C15 (1977) 361

1977BR03 B.A. Brown, A. Arima and J.B. McGrory, Nucl. Phys. A277 (1977) 77

1977CA03 G. Calvi, S. Cavallaro, R. Potenza, F. Riggi and C. Spitaleri, Lett. Nuovo Cim. 18 (1977) 77

1977CA1K Caughlan, in CNO Isotopes in Astrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 121

1977CE05 J. Cerny and J.C. Hardy, Ann. Rev. Nucl. Sci. 27 (1977) 333

1977CH22 R. Chechik, Z. Fraenkel, H. Stocker and Y. Eyal, Nucl. Phys. A287 (1977) 353

1977CL1F Clayton, Dwek and Woosley, Astrophys. J. 214 (1977) 300

1977CO1U Cowan and Rose, Astrophys. J. 212 (1977) 149

1977CO1W Cowan and Rose, Astrophys. J. 217 (1977) 51

1977CO1Z Coburn and Fortune, Bull. Amer. Phys. Soc. 22 (1977) 28

1977DE1N Dearborn, in CNO Isotopes in Astrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 39

1977DI1C Dickman, Langer, McCutcheon and Shuter, in CNO Isotopes in Astrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 95

1977DU04 J.L. Durell, C. Harter and W.R. Phillips, Phys. Lett. B70 (1977) 405

1977EI01 Y. Eisen, I. Tserruya, Y. Eyal, Z. Fraenkel and M. Hillman, Nucl. Phys. A291 (1977) 459

1977EN1B Encrenaz, in CNO Isotopes in Astrophys., J. Audouze Ed. (D. Reidel, Holland, 1977) p. 79

1977GR16 R. Gross and I. Talmi, Nucl. Phys. A286 (1977) 211

1977GR17 W. Gruhle and B. Kober, Nucl. Phys. A286 (1977) 523

1977GR20 J.M. Greben and F.S. Levin, Phys. Lett. B71 (1977) 252

1977HA1P Haeberli, in Proc. Int. Conf. Nucl. Struct., Tokyo (1977); J. Phys. Soc. Jpn. Suppl. 44 (1978) 435

1977HA1Z Harvey, Proc. Int. Conf. Nucl. Struct., Tokyo, (1977); J. Phys. Soc. Jpn. Suppl. 44 (1978) 127

1977HE18 W.D. Heiss, C.A. Engelbrecht and F.J.W. Hahne, Nucl. Phys. A289 (1977) 386

1977HO04 Y. Horikawa, T. Hoshino and A. Arima, Nucl. Phys. A278 (1977) 297

1977HO1B Hoistad, in High Energy Phys. Nucl. Struct., Zurich 1977 (Birkhauser Verlag, 1977) 215

1977HO1P Holt, Spect, Jackson and Laszewski, Nucl. Instrum. Meth. Phys. Res. 141 (1977) 125

1977IM1B Imanishi, Tanimura and Ohnishi, Proc. Int. Conf. Nucl. Struct., Tokyo, (1977); J. Phys. Soc. Jpn. Suppl. 44 (1978) 257

1977KA1Y Kalinsky, Melnik, Smilansky and Trautner, Proc. Int. Conf. Nucl. Struct., Tokyo, (1977); J. Phys. Soc. Jpn. Suppl. 44 (1978) 263

1977KA21 D. Kalinsky, D. Melnik, U. Smilansky, N. Trautner, Y. Horowitz and S. Mordechai, Nucl. Phys. A289 (1977) 205

1977KA2D Kawai, Imanishi and Ichimura, in Tokyo (1977), Contrib. Papers p. 526

1977KN1E Knopfle et al., Bull. Amer. Phys. Soc. 22 (1977) 541

1977KO28 G. Konopka, M. Gari and J.G. Zabolitzky, Nucl. Phys. A290 (1977) 360; Erratum Nucl. Phys. A306 (1978) 536

1977KO2G Kolybasov and Smorodinskaya. JETP Lett. 26 (1977) 109

1977KO2H Koyama, Nakanishi and Ohnuma, in Tokyo (1977), Contrib. Papers p. 546

1977KO2J Koike, Res. Rept. Nagaoka Tech. Coll. (Japan) 13 (1977) 145; Phys. Abs. 37355 (1978)

1977LI1N Lindahl and Shuktis, Nucl. Instrum. Meth. Phys. Res. 144 (1977) 317

1977MA10 G. Mairle, K.T. Knopfle, P. Doll, J. Breuer and G.J. Wagner, Nucl. Phys. A280 (1977) 97

1977MA2E Mayer-Boricke, Nukleonika 22 (1977) 1131

1977MA2G Martz et al., Bull. Amer. Phys. Soc. 22 (1977) 634

1977MC05 A.B. McDonald, E.D. Earle, M.A. Lone, F.C. Khanna and H.C. Lee, Nucl. Phys. A281 (1977) 325

1977MO1A T. Motobayashi, Rept. Inst. Phys. Chem. Res. 53 (1977) 81.

1977MO1C Moyle, Glagola, Matthews and Viola, Bull. Amer. Phys. Soc. 22 (1977) 998

1977MU04 S.N. Mukherjee, R. Shyam, S. Pal and N.K. Ganguly, Phys. Rev. C15 (1977) 1238

1977NA29 V.S. Nadezhdin, N.I. Petrov and V.I. Satarov, Pisma Zh. Eksp. Teor. Fiz. 26 (1977) 123; JETP Lett. 26 (1977) 115

1977NO06 B.E. Norum, J.C. Bergstrom and H.S. Caplan, Nucl. Phys. A289 (1977) 275

1977NO07 J.M. Normand, Nucl. Phys. A291 (1977) 126

1977NO08 J.A. Nolen, T.S. Bhatia, H. Hafner, P. Doll, C.A. Wiedner and G.J. Wagner, Phys. Lett. B71 (1977) 314

1977NO1E Norgaard, Astrophys. J. 215 (1977) 200

1977OH02 H. Ohnuma, T. Suehiro, T. Tanabe and S. Yamada, J. Phys. Soc. Jpn. 42 (1977) 382

1977PE09 G. Perrin, D. Lebrun, J. Chauvin, P. Martin, P. De Saintignon, D. Eppel, H.V. Geramb, H.L. Yadav and V.A. Madsen, Phys. Lett. B68 (1977) 55

1977PE1G J.F. Petersen, D. Dehnhard and B.F. Bayman, Phys. Rev. C15 (1977) 1719

1977PH02 D.-L. Pham and R. de Swiniarski, Nuovo Cim. A41 (1977) 543

1977PL1A Plavko, Izv. Akad. Nauk SSSR Ser. Fiz. 41 (1977) 1293

1977PO16 A. Poves, A.L. Cedillo and J.M.G. Gomez, Nucl. Phys. A293 (1977) 397

1977PR1E Prialnick, Shara and Shavin, in CNO Isotopes in Atsrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 63

1977RA1C Ramstrom and Weilding, Astrophys. J. 211 (1977) 223

1977RE1C Rehm, Essel and Korner, Bull. Amer. Phys. Soc. 22 (1977) 39

1977SH13 R. Sherr, Phys. Rev. C16 (1977) 1159

1977SH18 J. Shurpin, H. Muther, T.T.S. Kuo and A. Faessler, Nucl. Phys. A293 (1977) 61

1977SI01 R.R. Silbar, J.N. Ginocchio and M.M. Sternheim, Phys. Rev. C15 (1977) 371

1977SI1D Silberberg and Tsao, Astrophys. J. Suppl. 35 (1977) 129

1977ST20 D.P. Stahel, G.J. Wozniak, M.S. Zisman, B.D. Jeltema and J. Cerny, Phys. Rev. C16 (1977) 1456

1977SU1H Suzuki, Hyuga and Horikawa, in Tokyo (1977), Contrib. Papers p. 176

1977SW05 Z.E. Switkowski, Shiu-Chin Wu, J.C. Overley and C.A. Barnes, Nucl. Phys. A289 (1977) 236

1977TE1A Terrien, in Tokyo (1977), Contrib. Papers p. 843

1977TH09 D.R. Thompson, M. LeMere and Y.C. Tang, Nucl. Phys. A286 (1977) 53

1977TO1E Toyama, Proc. Int. Conf. Nucl. Struct., Tokyo (1977); J. Phys. Soc. Jpn. Suppl. 44 (1978) 450

1977TR1D Truran, in CNO Isotopes in Astrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 145

1977WA08 A.H. Wapstra and K. Bos, At. Data Nucl. Data Tables 19 (1977) 175; Erratum At. Data Nucl. Data Tables 20 (1977) 1

1977WA1P Wannier, in CNO Isotopes in Astrophys., Ed. J. Audouze (D. Reidel, Holland, 1977) 71

1977WE1H Werby, Nagarajan, Goldfinger and Tobocman, Fiz. (Yugoslavia) 9, Suppl. 2 (1977) 46; Phys. Abs. 627 (1978)

1977YO02 R.C. York and R.T. Carpenter, Nucl. Phys. A282 (1977) 351

1977ZE1A Zelenskaya and Teplov, Izv. Akad. Nauk SSSR Ser. Fiz. 41 (1977) 1711

1978AB08 A.Y. Abul-Magd and J. Hufner, Nucl. Phys, A308 (1978) 429

1978AJ03 F. Ajzenberg-Selove, Nucl. Phys. A300 (1978) 1

1978AL07 G.D. Alkhazov, B.L. Birbrair, S.I. Glezer, L.P. Lapina and V.A. Sadovnikova, Yad. Fiz. 27 (1978) 333; Sov. J. Nucl. Phys. 27 (1978) 181

1978AL1G Alkhazov, Belostotsky and Vorobyov, Phys. Rept. C42 (1978) 89

1978AL1T Alexander and Forster, Advances Nucl. Phys., Vol. 10, Eds. Baranger and Vcgt (Plenum Press, New York, 1978) 197

1978AL1X Alkhazov et al., Pisma V Zh. Eksp. Teor. Fiz. 28 (1978) 713

1978AM05 H. Amakawa, A. Mori and K. Yazaki, Phys. Lett. B76 (1978) 157

1978AM1D Amsel et al., Nucl. Instrum. Meth. Phys. Res. 149 (1978) 705, 713

1978AN07 I. Angeli and M. Csatlos, Atomki Kozlem. 20 (1978) 1

1978AR04 A. Arima, Y. Horikawa, H. Hyuga and T. Suzuki, Phys. Rev. Lett. 40 (1978) 1001; Erratum Phys. Rev. Lett. 42 (1979) 1186

1978AR15 K.P. Artemov, V.Z. Goldberg, I.P. Petrov, V.P. Rudakov, I.N. Serikov, V.A. Timofeev, R. Wolski and J. Szmider, Yad. Fiz. 28 (1978) 288; Sov. J. Nucl. Phys. 28 (1978) 145

1978AR1R Arima, Hyperfine Interaction 4 (1978) 151

1978BI1L Birbrair et al., Sov. J. Nucl. Phys. 28 (1978) 321

1978BO1L Borders and Harris, Nucl. Instrum. Meth. Phys. Res. 149 (1978) 279

1978BR1R B.A. Brown, W. Chung and B.H. Wildenthal, Phys. Rev. Lett. 40 (1978) 1631

1978BR28 F.A. Brieva and J.R. Rook, Nucl. Phys. A307 (1978) 493

1978BU1B Buffington, Orth and Mast, Astrophys. J. 226 (1978) 355

1978CH03 R. Chechik, Y. Eyal, H. Stocker and Z. Fraenkel, Nucl. Phys. A296 (1978) 307

1978CH16 R. Chechik, Z. Fraenkel, Y. Eyal and H. Stocker, Nucl. Phys. A304 (1978) 243

1978CH26 W. Chung, J. van Hienen, B.H. Wildenthal and C.L. Bennett, Phys. Lett.

B79 (1978) 381

1978CL08 M.E. Clark, K.W. Kemper and J.D. Fox, Phys. Rev. C18 (1978) 1262

1978CL1F Clayton, Ann. Rev. Nucl. Part. Sci. 28 (1978) 501

1978EN1D Engelbrecht, Hahne and Heiss, S. African J. Phys. 1 (1978) 41

1978FE06 J.R. Fernandez Diaz and V.K. Sirotkin, Nucl. Phys. A312 (1978) 17

1978FO05 H.T. Fortune, M.E. Cobern and G.E. Moore, Phys. Rev. C17 (1978) 888

1978FO22 H.T. Fortune, J.N. Bishop, L.R. Medsker and B.H. Wildenthal, Phys. Rev. Lett. 41 (1978) 527

1978GA1C Gal, Soper and Dalitz, Ann. Phys. 113 (1978) 79

1978GE1C Gelbke et al., Phys. Rept. C42 (1978) 311

1978GO05 I.G. Golikov, M.N. Zhukov, I.I. Loshchakov and B.I. Ostroumov, Yad. Fiz. 27 (1978) 7; Sov. J. Nucl. Phys. 27 (1978) 3

1978GR1D Grigoryan and Shakhbazyan, Yad. Fiz. 28 (1978) 1372

1978GU10 K. Gul, J. Phys. Soc. Jpn. 44 (1978) 353

1978HE18 A. Hertz, H. Essel, H.J. Korner, K.E. Rehm and P. Sperr, Phys. Rev. C18 (1978) 2780

1978HE1D Heitzmann, Atomkernenergie 31 (1978) 262

1978HI1E Hirvonen and Lucke, Nucl. Instrum. Meth. 149 (1978) 295

1978HO16 R.J. Holt, H.E. Jackson, R.M. Laszewski, J.E. Monahan and J.R. Specht, Phys. Rev. C18 (1978) 1962

1978HO1C Hodgson, Riv. Nuovo Cim. 1 (1978) 1

1978JA10 R. Jahn, D.P. Stahel, G.J. Wozniak, R.J. de Meijer and J. Cerny, Phys. Rev. C18 (1978) 9

1978KA1X Kawai, Kamimuro, Mito and Takesako, Prog. Theor. Phys. 59 (1978) 676

1978KE06 G.J. KeKelis, M.S. Zisman, D.K. Scott, R. Jahn, D.J. Vieira, J. Cerny and F. Ajzenberg-Selove, Phys. Rev. C17 (1978) 1929.

1978KI01 J.C. Kim, R.S. Hicks, R. Yen, I.P. Auer, H.S. Caplan and J.C. Bergstrom, Nucl. Phys. A297 (1978) 301

1978KO01 D.G. Kovar, W. Henning, B. Zeidman, Y. Eisen, J.R. Erskine, H.T. Fortune, T.R. Ophel, P. Sperr and S.E. Vigdor, Phys. Rev. C17 (1978) 83

1978KR02 E.M. Krenciglowa and H. Bando, Nucl. Phys. A294 (1978) 191

1978KR19 K.S. Krane, At. Data Nucl. Data Tables 22 (1978) 269

1978LE1H Le Mere and Tang, in Proc., Cluster, Winnipeg (1978) A21

1978LE1W Lee, Astrophys. J. 224 (1978) 217

1978LEZA C.M. Lederer, V.S. Shirley, E. Browne, J.M. Dairiki, R.E. Doebler, A.A. Shihab-Eldin, L.J. Jardine, J.K. Tuli and A.B. Buyrn, Table of Isotopes 7th Ed. (John Wiley and Sons, Inc., New York, 1978)

1978MA2G Matrz et al., Bull. Amer. Phys. Soc. 23 (1978) 501

1978MA44 J.F. Mateja, A.D. Frawley, A. Roy, J.R. Hurd and N.R. Fletcher, Phys. Rev. C18 (1978) 2622

1978MC04 A.B. McDonald and E.G. Adelberger, Phys. Rev. Lett. 40 (1978) 1692

1978MO14 J.M. Moss, W.D. Cornelius and D.R. Brown, Phys. Rev. Lett. 41 (1978) 930

1978MO18 G.E. Moore, M.E. Cobern, H.T. Fortune, S. Mordechai, R.V. Kollarits and R. Middleton, Phys. Lett. B76 (1978) 192

1978NA18 V.S. Nadezhdin, N.I. Petrov and V.I. Satarov, Yad. Fiz. 27 (1978) 1164; Sov. J. Nucl. Phys. 27 (1978) 617

1978NI1B Niiler and Birkmire, Nucl. Instrum. Meth. Phys. Res. 149 (1978) 301

1978NO04 C. Nordborg, L. Nilsson, H. Conde and L.G. Stromberg, Nucl. Sci. Eng. 66 (1978) 75

1978NO1G Norum et al., Bull. Amer. Phys. Soc. 23 (1978) 960

1978PA1B Park, Greiner and Scheid, Bull. Amer. Phys. Soc. 23 (1978) 538

1978PH01 R.J. Philpott, D. Mukhopadhyay and J.E. Purcell, Nucl. Phys. A294 (1978) 6

1978PO1B Podosek, Ann. Rev. Astron. Astrophys. 16 (1978) 293

1978QA01 S.M. Qaim and R. Wolfle, Nucl. Phys. A295 (1978) 150

1978RA2A S. Raman, C.A. Houser, T.A. Walkiewicz and I.S. Towner, At. Data Nucl. Data Tables 21 (1978) 567; Erratum At. Data Nucl. Data Tables 22 (1978) 369

1978RE1G E.A. Remler and A.P. Sathe, Phys. Rev. C18 (1978) 2293

1978RO1M Rozak, Montestruqe and Darden, Bull. Amer. Phys. Soc. 23 (1978) 501

1978SA33 H. Sakaguchi, M. Nakamura, K. Hatanaka, A. Goto, T. Noro, F. Ohtani, S. Kobayashi, K. Hosono and M. Kondo, Fiz. (Yugoslavia) Suppl. 10 (1978) 53

1978SC14 C. Schneider, Nucl. Phys. A300 (1978) 313

1978SE08 J.C. Sens, S.M. Refaei and A. Pape, Phys. Rev. C18 (1978) 2007

1978SE1H Seglie, Ascuitto and Petersen, Bull. Amer. Phys. Soc. 23 (1978) 947

1978SH1B Shlomo, Rept. Prog. Phys. (GB) 41 (1978) 957

1978SL1B Slaus, Proc. Int. Conf. Nucl. Struct., Tokyo (1977); J. Phys. Soc. Jpn. Suppl. 44 (1978) 57

1978ST1C Starrfield, Truran and Sparks, Astrophys. J. 226 (1978) 186

1978SU1D Subramanian et al., Bull. Amer. Phys. Soc. 23 (1978) 12

1978SU1E Subramanian et al., Bull. Amer. Phys. Soc. 23 (1978) 943

1978TA1A Tang, Lemere and Thompson, Phys. Rept. 47 (1978) 167

1978TH1A Thompson, in Clustering, Winnipeg 1978, AIP Conf. Proc. 47 (1978) 69

1978TR1C Truran, Cowan and Cameron, Astrophys. J. 222 (1978) L63

1978VA1A L.C. Vaz and J.M. Alexander, Phys. Rev. C18 (1978) 2152

1978WO1E Woosley, Fowler, Holmes and Zimmerman, At. Data Nucl. Data Tables 22 (1978) 371

1978WU03 J.R. Wu and C.C. Chang, Phys. Rev. C17 (1978) 1540

1978YA15 T. Yamamoto, Y. Hino, S. Itagaki and K. Sugiyama, J. Nucl. Sci. Tech. (Japan) 15 (1978) 797

1978ZA1D Zalm, Van Hienen and Glaudemans, Z. Phys. A287 (1978) 255

1978ZA1E L. Zamick, Phys. Rev. Lett. 40 (1978) 381

1979AD03 G.S. Adams, T.S. Bauer, G. Igo, G. Pauletta, C.A. Whitten, Jr., A. Wriekat, G.W. Hoffmann, G.R. Smith, M. Gazzaly, L. Ray et al., Phys. Rev. Lett. 43 (1979) 421

1979AL22 Y. Alhassid, R.D. Levine, J.S. Karp and S.G. Steadman, Phys. Rev. C20 (1979) 1789

1979AN15 B.D. Anderson, N. Jarmie, R.J. Barrett and E.D. Arthur, Phys. Rev. C20 (1979) 897

1979AN35 G.B. Andreev and A.P. Tomozov, Ukr. Fiz. Zh. (USSR) 24 (1979) 1888; Phys. Abs. 32288 (1980)

1979AR1F Arima, Proc. Mainz 1979, Springer Lec. Notes 108 (1979) 9

1979BA08 C. Bargholtz, Phys. Lett. B81 (1979) 286

1979BA29 W.H. Bassichis and M.R. Strayer, Phys. Rev. C20 (1979) 915

1979BA31 G.C. Ball, W.G. Davies, J.S. Forster, H.R. Andrews, D. Horn and W. McLatchie, Nucl. Phys. A325 (1979) 305

1979BE1H Benenson and Kashy, Rev. Mod. Phys. 51 (1979) 527

1979BI1C Birbrair, Izv. Akad. Nauk SSSR Ser. Fiz. 43 (1979) 2242

1979BL1F Blatt et al., Bull. Amer. Phys. Soc. 24 (1979) 843

1979BO1K Bodek et al., Helv. Phys. Acta 52 (1979) 88

1979BO22 V.I. Bogatin, O.V. Lozhkin and Y.P. Yakovlev, Nucl. Phys. A326 (1979) 508

1979BR04 H.S. Bradlow, W.D.M. Rae, P.S. Fisher, N.S. Godwin, G. Proudfoot and D. Sinclair, Nucl. Phys. A314 (1979) 207

1979BR17 B.A. Brown, S.E. Massen and P.E. Hodgson, Phys. Lett. B85 (1979) 167

1979BR30 B.A. Brown, S.E. Massen and P.E. Hodgson, J. Phys. G5 (1979) 1655

1979CA1A Cameron et al., Conf. Proc. Triumf, Vancouver (1979) Paper 4A15

1979CH12 J.E. Christiansson, J. Dubois and H. Roth, Phys. Scr.19 (1979) 245

1979CH1T Chance and Harris, Astron. Astrophys. 74 (1979) 247

1979CH2B Chew et al., Int. Conf. Nucl. Phys. with Electromag. Inter., Mainz (1979) 5.1

1979CH2C Chant, Roos and Kitching, in Conf. Proc. TRIUMF, Vancouver (1979) Paper 4C26

1979CO10 M. Conze and P. Manakos, J. Phys. G5 (1979) 671

1979CR03 B.J.B. Crowley, Ann. Phys. 117 (1979) 323

1979DA11 S.E. Darden and J.L. Foster, Phys. Rev. C19 (1979) 2396

1979DE1P de Vries, in BNL-51115 (1979) p. 513

1979DE31 R.M.DeVries and J.C. Peng, Phys. Rev. Lett. 43 (1979) 1373

1979ER02 .J. Ernst, Phys. Rev. C19 (1979) 896

1979FO14 H.T. Fortune, G.E. Moore, L. Bland, M.E. Cobern, S. Mordechai, R. Middleton and R.D. Lawson, Phys. Rev. C20 (1979) 1228

1979GL1C Glashausser et al., in Conf. Proc. TRIUMF, Vancouver (1979) Paper 4A2

1979GR11 J.M. Greben and F.S. Levin, Nucl. Phys. A325 (1979) 145

1979HE1F K.T. Hecht and W. Zahn, Nucl. Phys. A313 (1979) 77

1979HO1L Hoistad et al., in Conf. Proc. TRIUMF, Van couver (1979) Paper 4B13

1979HY01 M.V. Hynes, H. Miska, B. Norum, W. Bertozzi, S. Kowalski, F.N. Rad, C.P. Sargent, T. Sasanuma, W. Turchinetz and B.L. Berman, Phys. Rev. Lett. 42 (1979) 1444

1979JA1M Jacobson, Jonsson and Kritiansson, Astrophys. Space Sci. 63 (1979) 215

1979JA22 L. Jarczyk, B. Kamys, J. Okolowicz, J. Sromicki, A. Strzalkowski, H. Witala, Z. Wrobel, M. Hugi, J. Lang, R. Muller et al., Nucl. Phys. A325 (1979) 510

1979JO05 R.G. Johnson, B.L. Berman, K.G. McNeill, J.G. Woodworth and J.W. Jury, Phys. Rev. C20 (1979) 27

1979JO08 R.R. Johnson, T. Masterson, B. Bassalleck, W. Gyles, T. Marks, K.L. Erdman, A.W. Thomas, D.R. Gill, E. Rost, J.J. Kraushaar et al., Phys. Rev. Lett. 43 (1979) 844

1979JO1C Jones, in Houston, AIP Conf. Proc. 54 (1979) 116

1979JO1H Johnson, Fowler, Hill and Ortolf, Bull. Amer. Phys. Soc. 24 (1979) 886

1979KA06 N.I. Kassis and S.K. Khalil, Nucl. Phys. A315 (1979) 381

1979KH03 F.M. Khan, J. Lowe, J.M. Nelson and A.R. Barnett, Nucl. Phys. A322 (1979) 33

1979KN1F Knopfle, Proc. Mainz, 1979, Springer Lect. Notes 108 (1979) 311

1979KO01 A.M. Kobos and R.S. Mackintosh, J. Phys. G5 (1979) 97

1979KO26 L. Koester, K. Knopf and W. Waschkowski, Z. Phys. A292 (1979) 95

1979LA1H Lazareff, Audouze, Starrfield and Truran, Astrophys. J. 228 (1979) 875

1979LA1J Larson, Harvey and Hill, Bull. Amer. Phys. Soc. 24 (1979) 862

1979LE1B M. LeMere and Y.C. Tang, Phys. Rev. C19 (1979) 391

1979LE1F Lee, Schramm, Wefel and Blake, Astrophys. J. 232 (1979) 854

1979MA2P H.A. Mavromatis and L.D. Skouras, Nucl. Phys. A326 (1979) 83

1979MA38 R.E. Marrs, R.E. Pollock and W.W. Jacobs, Phys. Rev. C20 (1979) 2308

1979MA39 R.E. Marrs and R.E. Pollock, Phys. Rev. C20 (1979) 2446

1979MA48 S.I. Manaenkov, Pisma Zh. Eksp. Teor. Fiz. 30 (1979) 360; JETP Lett. 30 (1979) 334

1979MI09 H. Miska, B. Norum, M.V. Hynes, W. Bertozzi, S. Kowalski, F.N. Rad, C.P. Sargent, T. Sasanuma and B.L. Berman, Phys. Lett. B83 (1979) 165

1979MO14 T. Motobayashi, I. Kohno, T. Ooi and S. Nakajima, Nucl. Phys. A331 (1979) 193

1979OR01 M.E. Ortiz, A. Dacal, A. Menchaca-Rocha, M. Buenerd, D.L. Hendrie, J. Mahoney, C. Olmer and D.K. Scott, Phys. Lett. B84 (1979) 63

1979OS1E E. Oset and M. Rho, Phys. Rev. Lett. 42 (1979) 47

1979PA1B Park, Scheid and Greiner, Bull. Amer. Phys. Soc. 24 (1979) 665

1979PE1E Penzias, Rev. Mod. Phys. 51 (1979) 425

1979PH05 D.-L. Pham and R. de Swiniarski, Z. Phys. A291 (1979) 327

1979PI10 W.T. Pinkston and P.J. Iano, Nucl. Phys. A330 (1979) 91

1979RA10 Rae et al., Nucl. Phys. A319 (1979) 239

1979RA1C Ramaty, Kozlovsky and Lingenfelter, Astrophys. J. Suppl. Series 40 (1979) 487

1979RA27 L. Ray, Phys. Rev. C20 (1979) 1857

1979RO1A Robert, Merlivat and Javoy, Nature 282 (1979) 785

1979RO1F Romero et al., Bull. Amer. Phys. Soc. 24 (1979) 656

1979SA27 G.R. Satchler, Nucl. Phys. A329 (1979) 233

1979SA38 H. Sakaguchi, M. Nakamura, K. Hatanaka, A. Goto, T. Noro, F. Ohtani, H. Sakamoto and S. Kobayashi, Phys. Lett. B89 (1979) 40

1979SO01 L.M. Solin, Y.A. Nemilov, V.N. Kuzmin and K.I. Zherebtsova, Yad. Fiz. 29 (1979) 289; Sov. J. Nucl. Phys. 29 (1979) 143

1979SO1C Soga et al., Bull. Amer. Phys. Soc. 24 (1979) 614

1979SU1G Suzuki, Hyuga, Arima and Horikawa, Int. Conf. Nucl. Phys. with Electromag. Inter., Mainz (1979) 7.8

1979SW1B Sweigart and Mengel, Astrophys. J. 229 (1979) 624

1979TO1B I.S. Towner and F.C. Khanna, Phys. Rev. Lett. 42 (1979) 51

1979VA06 J.S. Vaagen, B.S. Nilsson, J. Bang and R.M. Ibarra, Nucl. Phys. A319 (1979) 143

1979VD02 A.I. Vdovin, I.G. Golikov, M.N. Zhukov, I.I. Loshchakov and V.I. Ostroumov, Izv. Akad. Nauk SSSR Ser. Fiz. 43 (1979) 148; Bull. Acad. Sci. USSR Phys. Ser. 43 (1979) 124

1979VO08 F.K. Vosniakos, N.E. Davison, W.R. Falk, O. Abou-Zeid and S.P. Kwan, Nucl. Phys. A332 (1979) 157

1979WI1N Wilkerson, Clegg and Ludwig, Bulll. Amer. Phys. Soc. 24 (1979) 107

1979WI1P Wilkerson et al., Bull. Amer. Phys. Soc. 24 (1979) 612

1979ZA07 J.G. Zabolitzk and, W. Ey, Nucl. Phys. A328 (1979) 507

1979ZA1C Zamick, in Conf. Proc. TRIUMF, Vancouver (1979) Paper 5C1

1979ZO1A Zofka, in Conf. Proc. TRIUMF, Vancouver (1979) Paper 5E7

1980AL09 G.D. Alkhazov, S.L. Belostotsky, O.A. Domchenkov, Y.V. Dotsenko, N.P. Kuropatkin, V.N. Nikulin, A.A. Vorobyov and M.A. Shuvaev, Phys. Lett. B90 (1980) 364

1980AL1F Alburger, Transactions of the N.Y. Acad. of Sci. 40 (1980) 1

1980AM02 H. Amakawa, A. Mori and K. Yazaki, Nucl. Phys. A340 (1980) 125

1980AU09 J.P. Auger and R.J. Lombard, Nucl. Phys. A350 (1980) 332

1980AU1D Audouze, Chieze and Vangioni-Flam, Astron. Astrophys. 91 (1980) 49

1980AY01 T. Aytimur and J.P. Svenne, Can. J. Phys. 58 (1980) 1026

1980BA1M Barker et al., Proc. Int. Conf. in At. Masses and Fund. Constants, Nolen and Beneson Eds., Plenum Publ. (1980) 233

1980BO04 G. Bohannon, L. Zamick and E. Moya de Guerra, Nucl. Phys. A334 (1980) 278

1980BR05 V.N. Bragin, M.V. Zhukov, D.N. Stepanov, L.V. Chulkov and J. Jakiel, Yad. Fiz. 31 (1980) 29; Sov. J. Nucl. Phys. 31 (1980) 14

1980BR13 B.A. Brown, W. Chung and B.H. Wildenthal, Phys. Rev. C22 (1980) 774

1980CH1T Chew et al., Proc. Int. Conf. on Nucl. Phys., Berkeley (1980) 224

1980CH35 W.H. Chung and Y.M. Shin, Nuovo Cim. A60 (1980) 27

1980CI03 S. Cierjacks, F. Hinterberger, G. Schmalz, D. Erbe, P.V. Rossen and B. Leugers, Nucl. Instrum. Meth. 169 (1980) 185

1980CL1B Clayton, Nukleonika 25 (1980) 1477, 1491

1980CU1E Cujec, Wu and Barnes, LAP-166 (1979)

1980DE2F de Swiniarski and Dinh-lien Pham, Z. Phys. A296 (1980) 367

1980DM1A Dmitriev, Kosmach, Molchanov and Ostroumov, Sov. J. Nucl. Phys. 31 (1980) 62; Yad. Fiz. 31 (1980) 119

1980DO1E Dover and Gal, Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 795

1980FA07 E. Fabrici, S. Micheletti, M. Pignanelli, F.G. Resmini, R. De Leo, G. D'Erasmo and A. Pantaleo, Phys. Rev. C21 (11980) 844

1980FL1B Flodkvist et al., Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 74

1980FR1K Franz et al., Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 890

1980FU1G Furutani et al., Suppl. Prog. Theor. Phys. 68 (1980) 193

1980GO1L Goldfarb, Managoli and Singleton, Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 485

1980HI1C Hirsekorn, Z. Phys. A297 (1980) 141

1980HU1E Hugi et al., Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 508

1980HU1J Hugg and Hanna, Polariz., Santa Fe (1980) 294

1980HY1A Hynes et al., Bull. Amer. Phys. Soc. 25 (1980) 575

1980IZ1B Izumoto, Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 566

1980JU01 J.W. Jury, B.L. Berman, D.D. Paul, P. Meyer and J.G. Woodworth, Phys. Rev. C21 (1980) 503

1980KE14 J. Kelly, W. Bertozzi, T.N. Buti, F.W. Hersman, C. Hyde, M.V. Hynes, B. Norum, F.N. Rad, A.D. Bacher, G.T. Emery et al., Phys. Rev. Lett. 45 (1980) 2012

1980KE1C Kelly et al., Bull. Amer. Phys. Soc. 25 (1980) 575

1980KI06 P. Kitching, C.A. Miller, W.C. Olsen, D.A. Hutcheon, W.J. McDonald and A.W. Stetz, Nucl. Phys. A340 (1980) 423

1980KO1Q Kober, Gruhle and Hillen, Nucl. Instrum. Meth. Phys. Res. 174 (1980) 173

1980KR18 V.M. Krasnopolsky and V.I. Kukulin, Phys. Lett. B96 (1980) 4

1980LA05 S. Landowne, R. Schlicher, H.H. Wolter, K.E. Rehm, E. Muller, I.C. Oelrich, I. Paschopoulos and H. Rosler, Phys. Lett. B90 (1980) 389

1980LA1D Larson, Hetrick and Harvey, Bull. Amer. Phys. Soc. 25 (1980) 543

1980LA1P Landowne, Wolter and Schlicher, Proc. Int. Conf. Nucl. Phys., Berkeley (1980) 648

1980LE28 A.A. Levkovsky and E.F. Dreiman, Yad. Fiz. 31 (1980) 569; Sov. J. Nucl. Phys. 31 (1980) 295

1980LO07 B. Lorazo and B. Goulard, Can. J. Phys. 58 (1980) 388

1980LU03 Y.-W. Lui, O. Karban, S. Roman, R.K. Bhowmik, J.M. Nelson and E.C. Pollacco, Nucl. Phys. A333 (1980) 221

1980MA06 S.I. Manaenkov, Yad. Fiz. 31 (1980) 359; Sov. J. Nucl. Phys. 31 (1980) 189

1980MA28 Th.A.J. Maris, M.R. Teodoro and E.A. Veit, Phys. Lett. B94 (1980) 6

1980MC1C W.J. McDonald, Nucl. Phys. A335 (1980) 463

1980MI1G D.J. Millener, Phys. Rev. C22 (1980) 1355

1980OL1C Olson et al., Proc. Int. Conf. on Nucl. Phys., Berkeley (1980) p. 200

1980PA04 J.Y. Park, W. Greiner and W. Scheid, Phys. Rev. C21 (1980) 958

1980PA10 B. Pal, A. Chatterjee and A.M. Ghose, Nucl. Instrum. Meth. Phys. Res. 171 (1980) 347

1980PA1H Park and Scheid, Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 636

1980PE1F Penzias, Science 208 (1980) 663

1980PR09 G. Proudfoot, H.S. Bradlow, P.S. Fisher, N.S. Godwin, J. King, D. Sinclair and W.D.M. Rae, Nucl. Phys. A345 (1980) 278

1980RA1B L. Ray, Nucl. Phys. A335 (1980) 443

1980SA1L Sato et al., Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 536

1980SI12 S.J. Singleton, V. Managoli and L.J.B. Goldfarb, Nucl. Phys. A342 (1980) 312

1980SJ1A Sjoreen et al., Proc. Int. Conf. on Nucl. Phys. (Berkeley) (1980) 684

1980VA05 J.P. Vary, R.H. Belehrad and R.J. McCarthy, Phys. Rev. C21 (1980) 1626

1980WA1H Watson, Smithson, Fortune and Middleton, Proc. Int. Conf. on Nucl. Phys., Berkeley (1980) p. 564

1980WA1M Wannier, Ann. Rev. Astro. Astrophys. 18 (1980) 399

1980WA24 E.K. Warburton, D.E. Alburger and D.J. Millener, Phys. Rev. C22 (1980) 2330

1980WH1A C.A., Jr. Whitten, Nucl. Phys. A335 (1980) 419

1980WI09 J.P. Wieleczko, S. Harar, M. Conjeaud and F. Saint-Laurent, Phys. Lett. B93 (1980) 35

1980ZO1A Zofka, Czech. J. Phys. B30 (1980) 95

1981AJ01 F. Ajzenberg-Selove, Nucl. Phys. A360 (1981) 1.

1981AU01 E.H. Auerbach, C.B. Dover and S.H. Kahana, Phys. Rev. Lett. 46 (1981) 702

1981AU1C Auld, Santa Fe 1980, AIP Conf. Proc. 69 (1981) 93

1981AV02 I.K. Averyanov, A.I. Golubev and A.A. Sadovoy, Yad. Fiz. 33 (1981) 66

1981BA1G Basak et al., Santa Fe 1980, AIP Conf. Proc. 69 (1981) 593

1981BO03 A. Boudard, Y. Terrien, R. Beurtey, L. Bimbot, G. Burge, A. Chaumeaux, P. Couvert, J.M. Fontaine, M. Garcon, Y. Le Bornec et al., Phys. Rev. Lett. 46 (1981) 218; Phys. Rev. Let. 47 (1981) 147

1981CA1D L.S. Cardman, Nucl. Phys. A354 (1981) 173

1981CH1V Chan et al., Bull. Amer. Phys. Soc. 26 (1981) 554

1981DE09 L.C. Dennis, K.R. Cordell, R.R. Doering, R.L. Parks, S.T. Thornton, J.L.C. Ford, Jr., J. Gomez Del Campo and D. Shapira, Nucl. Phys. A357 (1981) 521

1981DE2J De Swiniarski and Pham, Proc. Versailles Conf. (1981) 149

1981DY03 P. Dyer, D. Bodansky, A.G. Seamster, E.B. Norman and D.R. Maxson, Phys. Rev. C23 (1981) 1865

1981FR1D Francey, Nature 290 (1981) 232

1981GR08 K. Grotowski, P. Belery, Th. Delbar, Y. El Masri, Gh. Gregoire, R. Janssens, J. Vervier, G. Paic, M. Albinska, J. Albinski et al., Phys. Rev. C23 (1981) 2513

1981GU1D Guzik, Astrophys. J. 244 (1981) 695

1981HI01 F. Hinterberger, P. Von Rossen, S. Cierjacks, G. Schmalz, D. Erbe and B. Leugers, Nucl. Phys. A352 (1981) 93

1981HO1L Hosono et al., in Polariz., Santa Fe 1980, AIP Conf. Proc. 69 (1981) 629

1981KO07 J.J. Kolata, C. Beck, R.M. Freeman, F. Haas and B. Heusch, Phys. Rev. C23 (1981) 1056

1981KR1B Kretschmer and Renner, Santa Fe 1980, AIP Conf. Proc. 69 (1981) 1329

1981LE1H Lewis et al., Santa Fe1980, AIP Conf. Proc. 69 (1981) 590

1981LI1B Liljestrand et al., Proc. Versailles Conf. (1981) 544

1981LI1N Lin and Zamick, Proc. Versailles Conf. (191) p. 467

1981MA14 G. Mairle, G.J. Wagner, K.T. Knopfle, Ken Pao Liu, H. Riedesel, V. Bechtold and L. Friedrich, Nucl. Phys. A363 (1981) 413

1981MA1F Madey et al., Bull. Amer. Phys. Soc. 26 (1981) 634

1981MA1J Maday et al., Proc.Versailles Conf. (198) p. 538

1981OS04 E. Oset and D. Strottman, Nucl. Phys. A355 (1981) 437

1981PU1A Pugh et al., Bull. Amer. Phys. Soc. 26 (1981) 606

1981RA1B Ray, Santa Fe 1980, AIP Conf. Proc. 69 (1981) 295

1981RO1H Roman, Santa Fe 1980, AIP Conf. Proc.69 (1981) 282

1981SA1F Sakaguchi et al., AIP Conf. Proc. 69 (1981) 445

1981SE06 M. Seya, M. Kohno and S. Nagata, Prog. Theor. Phys. 65 (1981) 204

1981SH1G J.R. Shepard and E. Rost, Phys. Rev. Lett. 46 (1981) 1544c

1981SI1B I. Sick, Nucl. Phys. A354 (1981) 37

1981SJ1C Sjoreen et al., Proc. Versailles Conf. (1981) 193

1981ST04 D.P. Stoker, P.H. Barker, H. Naylor, R.E. White and W.B. Wood, Nucl. Instrum. Meth. Phys. Res. 180 (1981) 515

1981TA09 K.C. Tam, H. Muther, H.M. Sommermann, T.T.S. Kuo and A. Faessler, Nucl. Phys. A361 (1981) 412

1981VA1F Vary and McCarthy, Bull. Amer. Phys. Soc. 26 (1981) 567

1981WA1R Waltham et al., Private Communication

1981WI1D M.E. Wiedenbeck and D.E. Greiner, Phys. Rev. Lett. 46 (1981) 682

1981WI1G Wilson, Langer and Goldsmith, Astrophys. J. 243 (1981) L47

1981ZA03 C.I. Zanelli, P.P. Urone, J.L. Romero, F.P. Brady, M.L. Johnson, G.A. Needham, J.L. Ullmann and D.L. Johnson, Phys. Rev. C23 (1981) 1015

1983AJ01 F. Ajzenberg-Selove, Nucl. Phys. A392 (1983) 1; Erratum Nucl. Phys. A413 (1984) 168

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^{17}F (1982AJ01)

(See Energy Level Diagrams for ^{17}F)

GENERAL: See (1977AJ02) and Table 17.18 [**Table of Energy Levels**] (in PDF or PS).

Shell and cluster models: (1977DU04, 1977HA1Z, 1977PO16, 1978TH1A).

Special states: (1977HE18, 1978EN1D, 1980CH35, 1981TA09).

Electromagnetic transitions: (1976MC1G, 1977BR03, 1977HA1Z, 1977HO04, 1980CH35).

Complex reactions involving ^{17}F: (1977AR06).

Astrophysical questions: (1977SI1D, 1978WO1E).

Reactions involving pions: (1981OS04, 1981PU1A).

Other topics: (1976SA1H, 1977BA3P, 1978EN1D, 1978SH1B, 1978SL1B, 1979BE1H, 1981TA09).

Ground state of ^{17}F: (1976JO1B, 1976MC1G, 1976SA1H, 1977AN12, 1977BR03, 1977DU04, 1977HA1Z, 1977KO28, 1977PO16, 1977SH13, 1978AR1R, 1978SL1B, 1980CH35, 1981TA09).

$$\mu = 4.7223 \pm 0.0012 \text{ nm (1978LEZA).}$$

$$Q = 0.10 \pm 0.02 \text{ b (1974MI21).}$$

1. ^{17}F(β^+)^{17}O $Q_m = 2.762$

Two recent measurements of the half-life of ^{17}F are 64.31 ± 0.09 sec (1977AZ01) and 64.80 ± 0.12 sec (1977AL20): the weighted mean of these is 64.49 ± 0.16 sec; log *ft* = 3.36. Earlier values are listed in (1971AJ02, 1977AJ02). The upper limit for the β^+ decay to ^{17}O*(0.87) is < 3.4×10^{-4} per decay (1969GA05) [log *ft* > 5.6]. See also (1978RA2A) and (1977AZ02, 1978BR1R, 1979BA08, 1979OS1E, 1979TO1B; theor.).

2. ^{12}C(^{12}C, ^{7}Li)^{17}F $Q_m = -16.860$

See (1971AJ02).

3. ^{12}C(^{14}N, ^{9}Be)^{17}F $Q_m = -10.4362$

Angular distributions are reported to ^{17}F*(0, 0.50) at $E(^{14}N)$ = 53 MeV (1976ZE04) and 78.8 MeV (1977MO1A; unresolved).

4. $^{12}C(^{20}Ne, ^{15}N)^{17}F$ Q_m = -9.0962

See (1979OR01).

5. $^{14}N(^{3}He, \gamma)^{17}F$ Q_m = 15.8431

Excitation functions for γ_0, γ_1, γ_2 and γ_3 have been studied for $E(^{3}He)$ = 3 to 19 MeV: observed resonances are displayed in Table 17.19 (in PDF or PS) (1981WA1R). [The earlier work by (1973MO1C), who studied the γ_{0+1} yield at 90°, indicated several sharp resonances].

6. (a) $^{14}N(^{3}He, n)^{16}F$ Q_m = -0.969 E_b = 15.8431

(b) $^{14}N(^{3}He, p)^{16}O$ Q_m = 15.2428

(c) $^{14}N(^{3}He, d)^{15}O$ Q_m = 1.8035

(d) $^{14}N(^{3}He, ^{3}He)^{14}N$

(e) $^{14}N(^{3}He, \alpha)^{13}N$ Q_m = 10.024

Excitation functions for protons have been measured for $E(^{3}He)$ = 2.5 to 18 MeV [see (1977AJ02)]: some large structures are observed. The polarization of the p_0 group has been studied at $E(^{3}He)$ = 9.8 MeV. The elastic scattering of ^{3}He (reaction (d)) and the yield of α-particles (reaction (e)), studied in the ranges $E(^{3}He)$ = 4 to 7 MeV and 2.5 to 8.5 MeV, respectively, show some evidence of structures (1970KN01, 1973MO1C): see the disucssion in (1977AJ02). See also ^{16}O and ^{16}F here, and ^{13}N, ^{14}N and ^{15}O in (1981AJ01).

7. $^{14}N(\alpha, n)^{17}F$ Q_m = -4.7347

See ^{18}F in (1978AJ03).

8. $^{14}N(^{6}Li, t)^{17}F$ Q_m = 0.049

At $E(^{6}Li)$ = 18 MeV ^{17}F*(3.86, 5.22 ± 0.01, 5.67 + 5.68) are strongly excited. J^{π} = 9/2$^-$ is suggested for ^{17}F*(5.22) (1973BI01). See also (1977MA2G).

9. $^{14}N(^{10}B, ^{7}Li)^{17}F$ Q_m = -1.945

See (1977AJ02).

10. $^{15}N(^{3}He, n)^{17}F$ $Q_m = 5.0097$

Angular distributions have been reported to most of the states of ^{17}F with $E_x < 8.1$ MeV at $E(^{3}He) = 3.8$ and 4.8 MeV: see (1977AJ02). Neutron groups have also been reported to ^{17}F states at $E_x = 11.195 \pm 0.007$, 12.540 ± 0.010 and 13.059 MeV, with $\Gamma < 20$, < 25 and < 25 keV, respectively. Angular distributions at $E(^{3}He) = 10.36$ and 11.88 MeV lead to $J^{\pi} = 1/2^{-}$ for $^{17}F^*(11.20)$ [L = 0], $3/2^{-}$ or $5/2^{-}$ for $^{17}F^*(12.54)$ and $(3/2^{-}, 5/2^{-})$ for $^{17}F^*(13.06)$. These three states are probably the first three T = 3/2 states in ^{17}F (1969AD02). The branching ratios for transitions to $^{16}O^*(0, 6.05, 6.13)$ for $^{17}F^*(11.20)$ and for the analog T = 3/2 state in ^{17}O are displayed in Table 17.11 (in PDF or PS): the ratios of the reduced widths are quite different in the two mirror nuclei (1970MC02, 1973AD02).

11. $^{15}N(^{11}B, ^{9}Li)^{17}F$ $Q_m = -18.138$

At $E(^{11}B) = 115$ MeV $^{17}F^*(0, 5.22)$ are strongly populated (1979RA10).

12. $^{16}O(p, \gamma)^{17}F$ $Q_m = 0.6004$

$Q_0 = 600.35 \pm 0.28$ keV (1976RO1T).

At low energies the direct capture to $^{17}F^*(0, 0.50)$ is observed: see (1971AJ02, 1977AJ02). Extrapolation of cross-section data leads to $S(0) \approx 8$ keV · b: see (1977AJ02). In addition to two T = 1/2 resonances, five resonances corresponding to T = 3/2 states are observed in the γ_1 and $\gamma_0 + \gamma_1$ yields: see Table 17.20 (in PDF or PS) for the reported parameters. The lowest T = 3/2 states of even parity at E_x = 13.27 and 14.02 MeV [$J^{\pi} = (1/2^{+})$ and $5/2^{+}$] (see Table 17.21 (in PDF or PS)) are not observed here: $\Gamma_{\gamma} \leq 7$ and ≤ 11.8 eV, respectively (1975HA06). The (E1) values for the T = 3/2 states are in good agreement with shell model 2p-1h calculations using realistic Kuo-Brown interaction matrix elements (1975HA06).

The $(\gamma_0 + \gamma_1)$ yield at 90° has been studied for $E_p = 15.75$ to 31.66 MeV: it shows the giant dipole resonance centered at $E_x = 22$ MeV with a width of ≈ 5 MeV and a pigmy resonance centered at 17.5 MeV. The integrated strength of the, mainly T = 1/2, giant resonance is 10 MeV · mb: the observed strength distribution is on good agreement with odd parity 2p-1h, 1p excitation calculations. The pigmy resonance is due to $f_{7/2} \rightarrow d_{5/2}$: the main $f_{7/2}$ strength lies in two states at $E_x = 16.9$ and 18.0 MeV (1975HA07). See also (1979BL1F), (1981CA1D), (1975ZI1A; astrophys.) and (1977AL18; theor.).

13. (a) $^{16}O(p, p)^{16}O$ $E_b = 0.6004$

(b) $^{16}O(p, 2p)^{15}N$ $Q_m = -12.1276$

(c) $^{16}O(p, pn)^{15}O$ $Q_m = -15.6639$

(d) $^{16}O(p, p\alpha)^{12}C$ $Q_m = -7.1620$

Yield curves for elastic protons, protons scattered to $^{16}O^*$(6.05, 6.13, 6.92, 7.12, 8.87) and for γ-rays from $^{16}O^*$(6.13, 6.92) have been studied at many energies up to E_p = 46 MeV: see Table 17.19 (in PDF or PS) in (1971AJ02) and (1977AJ02) for the earlier work and (1981KR1B; $E_{p\text{-bar}}$ = 8.5 to 10.6 MeV; p_0), (1979DA11; $E_{p\text{-bar}}$ ≈ 14.4 MeV; p_0). The observed resonances are displayed in Table 17.21 (in PDF or PS).

Polarization results have been reported at E_p = 3.47 to 49.4 MeV [see (1977AJ02)] and at E_p = 40 MeV (1978MO14; p_5), 42.5, 44.0 and 49.3 MeV (1977PE09; p_5), 65 MeV (1979SA38, 1981SA1F; p_0), 135 MeV (1980KE14; p_2, p_4), 800 MeV (1979AD03, 1979GL1C; p_0, p_{1+2}, p_3, p_4, p_5) and 1 GeV (1978AL1G, 1978AL1X, 1980AL09). For total reaction cross sections see (1979DE31, 1981DY03). See also (1977AJ02).

Polarization in quasi-elastic scattering (reaction (b)) has been studied at E_p = 200 MeV by (1976KI10, 1980KI06) and 635 MeV (1977NA29, 1978NA18). For reactions (c) and (d) see (1977AJ02). For reaction (d) see (1981DY03). For spallation measurements see (1976IN04, 1977MO1C) and (1979VD02). For antiproton scattering see (1981AU01; theor.).

See also ^{16}O and (1978GO05, 1978SA33, 1979WI1N, 1979WI1P, 1980LE28), (1979RA1C; astrophys.), (1977PL1A, 1979DE1P, 1979VO08, 1980MC1C, 1980WH1A, 1981RA1B) and (1976JE1A, 1976LE26, 1977KO2G, 1977PH02, 1978AB08, 1978AL07, 1978BI1L, 1978BR28, 1978GR1D, 1978PH01, 1978RE1G, 1978SC14, 1978WU03, 1979BI1C, 1979CH2C, 1979ER02, 1979KO01, 1979MA48, 1979PH05, 1979RA27, 1980AU09, 1980AY01, 1980DE2F, 1980DM1A, 1980MA28, 1980MA06, 1980RA1B, 1981DE2J; theor.).

14. $^{16}O(p, n)^{16}F$ $Q_m = -16.211$ $E_b = 0.6004$

For analyzing power measurements see (1981MA1F, 1981MA1J; $E_{pol.\ p}$ = 135 MeV). See also ^{16}F.

15. $^{16}O(p, d)^{15}O$ $Q_m = -13.4392$ $E_b = 0.6004$

The excitation function for d_0 (θ = 70°) has been measured for E_p = 21 to 38.5 MeV. A strong resonance is observed at E_p = 24 MeV: see Table 17.21 (in PDF or PS). Polarization measurements are reported at E_p = 65 MeV (1981HO1L; d_0), 30.3 MeV [see (1977AJ02)] and $E_{pol.\ p}$ = 200 MeV (1981LI1B). See also ^{15}O in (1981AJ01) and (1979CA1A).

16. (a) $^{16}O(p, t)^{14}O$ $Q_m = -20.4062$ $E_b = 0.6004$

(b) $^{16}O(p, ^3He)^{14}N$ $Q_m = -15.2428$

The excitation function (θ = 70°) for tritons has been measured for E_p = 32 to 39.5 MeV: no structure is observed [see (1977AJ02)]. Differential cross sections and analyzing powers have been studied at E_p = 43.8 MeV for the transitions to ^{14}O*(0, 5.17, 6.29, 6.59, 7.78, 9.72) and ^{14}N*(0, 2.31, 3.95, 5.11, 7.03, 9.17): attemts to fit the analyzing powers with zero-range DWBA were only successful for the first pair of analog states [$^{14}O_{g.s.}$, ^{14}N*(2.31)] (1974MA12). For other polarization measurements see (1977AJ02). See also ^{14}N and ^{14}O in (1981AJ01) and (1977HA1P).

17. $^{16}O(p, \alpha)^{13}N$ $Q_m = -5.2185$ $E_b = 0.6004$

Excitation functions of various α-groups and activation functions have been measured from threshold to E_p = 44 MeV: see Table 17.19 (in PDF or PS) in (1971AJ02) and (1977AJ02) for the earlier work and (1977GR17; 6.6 to 10.4 MeV; σ_t). Observed resonances are displayed in Table 17.21 (in PDF or PS). Some broad structures have been reported above E_p ≈ 15 MeV; particularly strong peaks appear at E_p ≈ 22 and 25.5 MeV: see (1977AJ02).

This reaction is involved in explosive burning in stars: see (1977AJ02) for earlier work and (1977GR17; S_0 = 4 ± 3 b at E_p(cm) = 6.5 MeV). See also (1977CL1F).

18. $^{16}O(d, n)^{17}F$ $Q_m = -1.6243$

Slow neutron thresholds have been observed corresponding to the ground and first excited states of ^{17}F: see (1971AJ02). The E_x of ^{17}F*(0.50) is 495.33 ± 0.10 keV (1966AL10; from γ-measurement); τ_m = 407 ± 9 psec (1964BE15). Neutron groups have been observed corresponding to ^{17}F*(0, 0.50, 3.10, 3.86, 4.70). Angular measurements have been obtained for the n_0 and n_1 groups (l_p = 2 and 0, respectively: $J^\pi = 5/2^+$ and $1/2^+$) for E_d ≤ 12 MeV: see Table 17.21 (in PDF or PS) in (1971AJ02) and (1972AN21; E_d = 3.10, 3.40 and 3.66 MeV). For polarization measurements see ^{18}F in (1983AJ01). See also (1980HU1J) and (1977AJ02).

19. $^{16}O(^3He, d)^{17}F$ $Q_m = -4.8932$

At $E(^3He)$ = 18 MeV, angular distributions of the deuterons to ^{17}F*(0, 0.50, 3.104 ± 0.003, 3.857 ± 0.004) have been measured. The spectroscopic factors for ^{17}F*(0, 0.50) are 0.94 and 0.83. Two-step processes appear to be involved in the excitation of ^{17}F*(3.10, 3.86) (1975FO16). Angular distributions have also been measured at $E(^3He)$ = 30 MeV (1977KO2H; to ^{17}F*(5.1, 5.7) and at E(pol. ^3He) = 33 MeV (1980LU03, 1981RO1H; d_0, d_1). See also ^{19}Ne in (1983AJ01) and (1977CO1Z;

theor.).

20. $^{16}O(\alpha, t)^{17}F$ $Q_m = -19.2137$

See (1971AJ02, 1977AJ02).

21. $^{16}O(^{7}Li, ^{6}He)^{17}F$ $Q_m = -9.374$

The angular distribution involving $^{17}F_{g.s.}$ has been measured at $E(^{7}Li) = 36$ MeV (1973SC26).

22. (a) $^{16}O(^{10}B, ^{9}Be)^{17}F$ $Q_m = -5.985$
(b) $^{16}O(^{11}B, ^{10}Be)^{17}F$ $Q_m = -10.628$

Angular distributions have been measured at $E(^{10}B) = 100$ MeV for the transitions to $^{17}F^*(0 + 0.50, 5.1, 8.1)$, (1975NA15), and at $E(^{11}B) = 115$ MeV for the transition to $^{17}F_{g.s.}$ (1979RA10).

23. (a) $^{16}O(^{12}C, ^{11}B)^{17}F$ $Q_m = -15.3566$
(b) $^{16}O(^{13}C, ^{12}B)^{17}F$ $Q_m = -16.933$

Angular distributions have been measured at $E(^{12}C) = 76.8$ MeV (1977MO1A, 1979MO14; $^{17}F^*(0, 0.5)$) and at $E(^{13}C) = 105$ MeV (1979RA10; $^{17}F_{g.s.}$).

24. $^{16}O(^{14}N, ^{13}C)^{17}F$ $Q_m = -6.9503$

Angular distributions involving $^{17}F^*(0, 0.5)$ have been measured at $E(^{14}N) = 76.2$ MeV (1977MO1A, 1979MO14) and 155 MeV (1975NA15, 1976NA09).

25. $^{16}O(^{16}O, ^{15}N)^{17}F$ $Q_m = -11.5272$

Angular distributions involving $^{17}F^*(0 + 0.5)$ have been measured at $E(^{16}O) = 95.2$ MeV (1977MO1A, 1979MO14).

26. $^{17}O(p, n)^{17}F$ $Q_m = -3.544$

Angular distributions of the n_0 and n_1 groups have been obtained for $E_p = 6.95$ to 13.50 MeV (n_0) and 6.95 to 12.45 MeV (n_1). There appears to be collective enhancement in the L = 2 transition to $^{17}F^*(0.5)$. A large spin-flip term in the effective two-body force is necessary to account for the strength of the ground state transition (1969AN06). See also ^{18}F in (1983AJ01).

27. $^{17}O(^{3}He, t)^{17}F$ $Q_m = -2.780$

Angular distributions have been studied for t_0 and t_1 at $E(^{3}He) = 17.3$ MeV [see (1977AJ02)] and for t_0 at E(pol. ^{3}He) = 33 MeV (1981BA1G).

28. $^{17}Ne(\beta^{+})^{17}F$ $Q_m = 14.53$

See ^{17}Ne.

29. $^{19}F(\gamma, 2n)^{17}F$ $Q_m = -19.582$

See ^{19}F in (1983AJ01).

30. $^{19}F(p, t)^{17}F$ $Q_m = -11.100$

Angular distributions have been measured for the $t_0 \rightarrow t_3$ groups at $E_p = 22.8$, 42.4 and 45 MeV: see (1977AJ02).

31. $^{20}Ne(p, \alpha)^{17}F$ $Q_m = -4.1306$

See (1977GR17, 1980KO1Q) and (1977AJ02).

32. (a) $^{20}Ne(^{3}He, ^{6}Li)^{17}F$ $Q_m = -8.151$

(b) $^{22}Ne(^{3}He, ^{8}Li)^{17}F$ $Q_m = -15.993$

At $E(^{3}He) = 75$ and 88 MeV $^{17}F^{*}(0, 0.5)$ have been populated in both reactions (1978KE06).