Errata to "Energy Levels of Light Nuclei, A = 18 - 20" (Nuclear Physics A392 (1983) 1)

in ^{18}F, reaction 15(b): change ^{14}N(^{13}C, ^{9}Be)^{19}F to ^{14}N(^{13}C, ^{9}Be)^{18}F

in ^{18}F, reaction 30: change $|M|^2 = 10.3 + 1.5$ W.u. to be $|M|^2 = 10.3 \pm 1.5$ W.u.

in ^{18}Ne, reaction 1: change ^{18}Ne(β^-)^{18}F to ^{18}Ne(β^+)^{18}F

in ^{19}F, reaction 29: the third paragraph that reads: "The decay is primarily by allowed transitions to ^{19}F*(0.197, 1.55), $J^\pi = \frac{5}{2}^+, \frac{3}{2}^+$. Very weak branches are also observed to ^{19}F*(0.11, 1.35, 3.91, 4.39), $J^\pi = \frac{1}{2}^-, \frac{5}{2}^-, \frac{3}{2}^+, \frac{7}{2}^+$: see Table 19.20. The half-life is 26.91 ± 0.08 sec: see reaction 1 in ^{19}O. The character of the allowed decay to the $\frac{5}{2}^+$ and $\frac{3}{2}^+$ states, and the forbiddenness of the decay to the ground state of ^{19}F are consistent with $J^\pi = \frac{5}{2}^+$ for the ground state" should be moved to reaction 36 [^{19}O(β^-)^{19}F] as the first paragraph there.

in Table 19.7: under $E_\mathrm{i} = 8.14$ MeV, $E_\mathrm{f} = 5.94$ MeV, change 10 ± 0.5 in the Branching ratios column to 1.0 ± 0.5. (Added on 11/30/2016)

in Table 19.18: in footnote [a], change 19.4 in (1972AJ02) to 19.14 in (1972AJ02). (Added on 02/11/2014)

in ^{19}Ne, reaction 1: change ^{19}Ne(β^-)^{19}F to ^{19}Ne(β^+)^{19}F.

in Table 19.20: in first column, change title to " Decay to ^{19}F* (keV) [b] " and change 0.110 to 110 keV. (Added on 02/03/2014)

in ^{20}O, reaction 2: isotopic should be changed to isotropic.

in ^{20}F there are two reaction 12. Please be aware that since the duplicate reactions exist that wherever reaction 12 is mentioned within the text or in any Table, it could be referring to either reaction.

in ^{20}Na, reaction 3: change ^{19}Ne(p, n)^{20}Na to ^{20}Ne(p, n)^{20}Na.

in Table 20.4, footnote [e]: change see Table 19.5 in (78AJ03) to see Table 20.5 in (78AJ03).

in Table 20.6, States of ^{20}F from ^{14}N(^{7}Li, p) and ^{16}O(^{7}Li, ^{3}He): change 0.984 ± 5 to 984 ± 5.

in Table 20.10, States of ^{20}F involved in ^{19}F(n, γ)^{20}F: in footnote [b], change 938.4 to 983.4.

in Table 20.15: Analog states of $A = 20$ observed in ^{21}Ne(d, ^{3}He)^{20}F and ^{21}Ne(d, t)^{20}Ne: in footnote [a] "See Table 20.38..." should be changed to See Table 20.34.

in Table 20.19, Excited states of ^{20}Ne from ^{12}C(^{12}C, α)^{20}Ne: (HI82) has been extensively changed and has now been published as (HI83). We will just list some of the more important changes in the level structure (we suggest that (HI83) be consulted for decay branching ratios):
(i) Instead of two 6^+ states at 12.588 ± 5 and 12.611 ± 10 (MeV$\pm$keV), a single state at 12.600 ± 10, $\Gamma_{\rm c.m.} = 50 \pm 10$ keV.
(ii) Instead of two 6^+ states at 14.296 ± 9 and 14.330 ± 10, a single state at 14.311 ± 15, $\Gamma_{\rm c.m.} < 50$ keV.
(iii) Instead of two 7^- states at 16.581 ± 10 and 16.616 ± 10, a single state at 16.600 ± 15, $\Gamma_{\rm c.m.} = 160 \pm 30$ keV.

in Table 20.17, Energy levels of ^{20}Ne: the following changes ensue:
(iv) Delete the line 12.611 ± 10. Replace $E_{\rm x}$ with 12.600 ± 10.
(v) Delete the line 14.330 ± 10. Replace with 14.311 ± 10; 6^+; < 50; α. The reaction numbers listed in the reaction column for this line remain the same.
(vi) Delete the line 16.616 ± 10. Replace with 16.600 ± 15, $\Gamma = 160 \pm 30$.

The same changes need to be made in the Energy level diagram for ^{20}Ne, as well as the $A = 20$ Isobar diagram. Please note that the $E_{\rm x}$ suggested for Table 20.17, Energy levels of ^{20}Ne, are approximate. To expedite these errata, we have not re-reviewed the $E_{\rm x}$ evidence from other sources but they are unlikely to contribute a change of more than a few keV.

I am indebted to Profs. P.D. parker and H.T. Richards for many useful comments.