

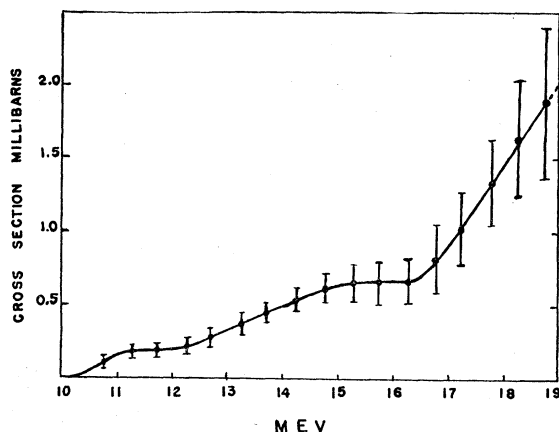


FIG. 2. Cross section γ s photon energy for $\text{Li}^7(\gamma, p)\text{He}^6$.

with the same half-life as He^6 . However, the neutron-capture cross section of Li^7 is sufficiently low to be negligible.

The indicated probable errors in Fig. 2 do not include a possible 15 percent error in the absolute scale depending upon the error in the Saskatchewan values.²

The cross-section curve shown in Fig. 2 is in essential disagreement with the values of Titterton and Brinkley.³ Using Illford emulsions they observed 118 complete (γ, p) events and obtained a cross section rising to a sharp symmetrical maximum at 15.7 Mev.

* This work was performed under the auspices of the U. S. Atomic Energy Commission.

¹ L. Katz and A. G. W. Cameron, Can. J. Research 29, 518 (1951).

² R. N. H. Haslam *et al.*, Can. J. Phys. 31, 216 (1953).

³ E. W. Titterton and T. A. Brinkley, Proc. Phys. Soc. (London) A66, 194 (1953).

Errata

The Nuclear Moments of Ta^{181} , B. M. BROWN AND D. H. TOMBOULIAN [Phys. Rev. 88, 1158 (1952)]. R. E. Trees¹ has been kind enough to call to the author's attention an error in the value of the matrix element $[\Sigma_i (3\cos^2\theta_i - 1)A_i]_{M=J}$ which was computed in estimating the quadrupole moment of Ta^{181} from hyperfine-structure measurements² of the Ta II ground state 5F_1 . The factor preceding the parenthesis [Eq. (6) of reference 2] should read $4/875$. Unfortunately, $8/875$ was used in the estimation of the quadrupole moment. With this correction, one arrives at the unusual value $q = 11.8 \times 10^{-24} \text{ cm}^2$ for the quadrupole moment. The large discrepancy between this value and that reported by Schmidt³ forces a re-evaluation of the approximations made in estimating the moment. As yet this has not been carried out. The factors which can be responsible for this discrepancy are (1) the experimentally determined value of B , the quadrupole coupling factor, (2) the angular average mentioned above, and (3) the radial average $(1/r^3)$. The worst view of the experimental error in the hyperfine-structure measurement will allow perhaps a spread of ± 15 percent in the quadrupole moment. The factors mentioned in (2) and (3) depend upon the coupling in the electronic structure. Russell-Saunders coupling was assumed in making these averages on the evidence of the interval rule agreement shown by the two lowest intervals of the 5F multiplet and the fact that the level whose hyperfine-structure was measured has the g value expected from

Russell-Saunders coupling. The disturbing evidence (besides the discrepancy now evident) is the intermixing of the terms of the three low-lying configurations of Ta II and the ratio $(\xi_d \text{Ta II} / \xi_d \text{Ta I})$. ξ_d is the d -electron fine-structure splitting factor. This ratio is approximately 1.3 for Ta. For other elements which ionize from the configuration d^ns^2 to d^ns this ratio deviates only slightly from unity. Among the elements tested are several which show better Russell-Saunders coupling than Ta. Trees⁴ gives further evidence in support of deviation from Russell-Saunders coupling as a possible reason for the discrepancy. The author wishes to thank Dr. Trees for calling attention to the error and making his paper available to him in advance of publication.

¹ R. E. Trees (private communication).

² B. M. Brown and D. H. Tomboulia, Phys. Rev. 88, 1158 (1952).

³ T. Schmidt, Z. Physik 121, 63 (1943).

⁴ R. E. Trees (to be published).

Radioactive Charging through a Dielectric Medium, E. G. LINDER AND P. RAPPAPORT [Phys. Rev. 91, 202 (1953)]
AND

Two-Particle Potential from the Bethe-Salpeter Equation, WILHELM MACKE [Phys. Rev. 91, 195 (1953)]. Figure 1 of these two Letters were inadvertently interchanged.

Decay of Re^{188} and the Lifetimes of Os^{186m} and Os^{188m} , C. C. McMULLEN AND M. W. JOHNS [Phys. Rev. 91, 418 (1953)]. The authors would like to withdraw the statements made concerning the lifetimes of the excited states in Os^{186} and Os^{188} which subsequent experiments have shown to be unreliable.

Gyromagnetic Ratios of Microcrystalline and Macrocrystalline Materials, S. J. BARNETT [Phys. Rev. 90, 315 (1953)]. In the second line of the fifth paragraph, "(5-80) Permalloy" should be "(4-79) Permalloy." In the next line, "Permalloy" should be "Permalloy (80 percent Ni, 20 percent Fe)." Also, in Footnote 3, "A. S. Kenny" should be "G. S. Kenny."

Directional Effects in the Electric Breakdown of Ionic Crystals, ELMER L. OFFENBACHER AND HERBERT B. CALLEN [Phys. Rev. 90, 401 (1953)]. The authors regret the omission of acknowledgment of support of the reported research by the U. S. Office of Naval Research.

Interference Terms of the Electron-Neutrino Angular Correlation, MASATO MORITA [Phys. Rev. 90, 1005 (1953)]. The following corrections should be made in the equations in the left hand column of page 1006:

In the equation for $\mathfrak{B}_{1ST}$, the end of the first line should be $\{L_1 - M_0\}$ instead of $\{L_0 - M_0\}$. In the equation for $\mathfrak{B}_{1VT}$, the last term should be $+\{\mathfrak{M}^*(\alpha)\mathfrak{M}(\beta\alpha) + \text{c.c.}\}L_0^-$ instead of $-\{\mathfrak{M}^*(\alpha)\mathfrak{M}(\beta\alpha) + \text{c.c.}\}L_0^-$. In the equation for $\mathfrak{B}_{1AP}$, the last term should be $+\{\mathfrak{M}^*(\gamma_s)\mathfrak{M}(\beta\gamma_s) + \text{c.c.}\}L_0^-$ instead of $-\{\mathfrak{M}^*(\gamma_s)\mathfrak{M}(\beta\gamma_s) + \text{c.c.}\}L_0^-$.

In addition, in the third last sentence of the Letter, the phrase "tensor interaction" should be replaced by "allowed tensor interaction."

Calculation of Nuclear Binding Energies with Single-Particle Oscillator Wave Functions, ERWIN H. KRONHEIMER [Phys. Rev. 90, 1003 (1953)]. In Eq. (4) the lower limit of the integral should be 0. In the fourth line of Eq. (5), " $(2l+1-2g-2s)!!$ " should read " $2L+1-2g-2s)!!$ ". In the expression for $\phi_l\{L_1, L_2, k; 1\}$, the term " $(2g-2p+2m)$ " should appear as the argument of the C -function, not as a factor.

The β Decay of Li^8 , D. STP. BUNBURY [Phys. Rev. 90, 1121 (1953)]. In this letter it was stated that the author's calculations of the theoretical $(\beta-\alpha)$ angular correlation in the decay of Li^8 were in disagreement with those of J. W. Gardner [Phys. Rev. 82, 283 (1951)]. An error has since been found in these calculations and the revised results are now in agreement with Gardner's.