

Errata

Properties of Liquid He³ at Low Temperature, K. A. BRUECKNER AND J. L. GAMMEL [Phys. Rev. **109**, 1040 (1958)]. The numerical values determining the magnetic susceptibility according to Eq. (32) are given incorrectly. The correct values are:

$$\begin{aligned} M/M^* &= 0.543, \\ \frac{Mk_F\Omega}{2\pi^2} [a_0(k_F, k_F)_{av} - a_e(k_F, k_F)_{av}] &= -0.780, \\ \frac{2Mk_F\Omega}{\pi^2} \left\{ \int \frac{d\mathbf{k}_i}{4\pi k_F^3} \frac{\partial}{\partial k_F} [a_0(\mathbf{k}_i, \mathbf{k}_j)_{k_j=k_F} \right. \\ &\quad \left. + \frac{1}{8} \int \frac{d\mathbf{k}_i}{4\pi k_F^3} \int \frac{d\mathbf{k}_j}{4\pi k_F^3} \frac{\partial}{\partial k_F} \right. \\ &\quad \left. \times [5a_0(\mathbf{k}_i, \mathbf{k}_j) + a_e(\mathbf{k}_i, \mathbf{k}_j)] \right\} = 0.320. \end{aligned}$$

These give $E_s/E_s(F) = 0.083$ and $\chi = 12.0 \chi_F$, where χ_F is the susceptibility of an ideal Fermi gas.

Study of (d, α) Reactions on Some Light Nuclei, G. E. FISCHER AND V. K. FISCHER [Phys. Rev. **114**, 533 (1959)]. The data in Fig. 12 were incorrectly transcribed from Freemantle *et al.*⁶ and the ordinate scale unit should be 0.1 mb/steradian rather than 0.01 mb/steradian. Similarly, the integrated experimental cross section for $O^{16}(d, \alpha_0)N^{14}$ given in Table I should be 2.2 mb rather than 0.22 mb. In Table II, the following values for $O^{16}(d, \alpha_0)N^{14}$ should be changed: $(d\sigma/d\Omega)_{exp}$ should be 0.40 mb rather than 0.04 mb and $(\gamma_0)_{normalized}$ should be 0.08 rather than 0.008. These corrections invalidate the conclusion that the $O^{16}(d, \alpha_0)N^{14}$ reaction can best be described by compound-nucleus theory.

Scattering of 200-Mev Positrons by Electrons, J. A. POIRIER, D. M. BERNSTEIN, AND JEROME PINE [Phys. Rev. **117**, 557 (1960)]. The result quoted in line 6 of the abstract is incorrect, and should be $(13 \pm 9)\%$.

Calculation of the Magnetic Hyperfine Structure Coupling Constants of NO, HÉLÈNE LEFEBVRE-BRION AND C. M. MOSER [Phys. Rev. **118**, 675 (1960)]. The configuration interaction function on p. 677 should be:

$$\begin{aligned} \Psi &= 0.95958\psi_0 + 0.00719\psi_1 + 0.06902\psi_2 + 0.06050\psi_2 \\ &\quad - 0.16466\psi_3 - 0.15233\psi_4 + 0.11617\psi_4 - 0.07637\psi_7 \\ &\quad + 0.00577\psi_8 + 0.03247\psi_9. \end{aligned}$$

The values of the constants obtained from this

function thus will be slightly changed from the values given in the paper.

Table IV, line 2 $\frac{1}{2}a$ $\frac{1}{3}d$ $\frac{1}{3}c$
 Table VII, line 2 A 125.7.
 Page 678, $\psi^2(0) = 0.096$ a.u.
 Page 680, line 5 from bottom, $q = 1.559 - 1.342 = 0.217$ a.u.

Perturbation Theory Applied to the Nuclear Many-Body Problem, J. S. LEVINGER, M. RAZAVY, O. ROJO, AND N. WEBRE [Phys. Rev. **119**, 230 (1960)]. The left-hand column in Table II should be titled " $2x^2$."

Polarization of Protons Scattered from C¹², T. A. TOMBRELLO, R. BARLOUTAUD, AND G. C. PHILLIPS [Phys. Rev. **119**, 761 (1960)]. The expression for the polarization on page 762 should read

$$P(\theta) = \frac{2 \operatorname{Im}(f_e f_i^*)}{|f_e|^2 + |f_i|^2} (\hat{k}_2 \times \hat{k}_1).$$

The authors wish to express their appreciation to Professor H. H. Barschall for pointing out this error.

Magnetic Scattering of Neutrons by Exchange-Coupled Lattices, A. W. SÁENZ [Phys. Rev. **119**, 1542 (1960)]. In line 1 of Eq. (2.7), ϵ should read ϵ' . In Eqs. (2.9a), the lines reading $-if(\mathbf{e} \cdot \boldsymbol{\lambda}) \times (\mathbf{e} \cdot [\mathbf{S}_i(0) \times \mathbf{S}_j(t)])$, $+\alpha f\{([\mathbf{e} \times \boldsymbol{\lambda}] \cdot [\mathbf{e} \times \mathbf{S}_i(0)]) \times ([\mathbf{e} \times \boldsymbol{\lambda}'] \cdot [\mathbf{e} \times \mathbf{S}_j(t)]) + i(\mathbf{e} \cdot \boldsymbol{\lambda}') \times ([\mathbf{e} \times \mathbf{S}_i(0)] \cdot [\mathbf{e} \times \mathbf{S}_j(t)])\}$ should read $+if(\mathbf{e} \cdot \boldsymbol{\lambda})(\mathbf{e} \cdot [\mathbf{S}_i(0) \times \mathbf{S}_j(t)])$, $+\alpha f \times [([\mathbf{e} \times \boldsymbol{\lambda}] \cdot [\mathbf{e} \times \mathbf{S}_i(0)])([\mathbf{e} \times \boldsymbol{\lambda}'] \cdot [\mathbf{e} \times \mathbf{S}_j(t)]) - i(\mathbf{e} \cdot \boldsymbol{\lambda}') \cdot [\mathbf{e} \times \mathbf{S}_j(t)]] - i(\mathbf{e} \cdot \boldsymbol{\lambda}') \cdot [\mathbf{e} \times \mathbf{S}_i(0)]$, respectively. In the first of Eqs. (2.9b), $\exp[-2W_0(\mathbf{q}_0)]$ and a_l should read $\exp[-W_0(\mathbf{q}_0)]$ and $a_l \exp[-W_l(\mathbf{q}_0)]$, respectively. In the definition of $\psi_1(\mathbf{e}; \alpha)$ in Eqs. (4.5), -2 should read 2 . The terms $-2f(\mathbf{e} \cdot \boldsymbol{\lambda})(\mathbf{e} \cdot \mathbf{y})\Re(\epsilon, \mathbf{q})$ in (4.12), $+2\eta f(\mathbf{e} \cdot \boldsymbol{\lambda})(\mathbf{e} \cdot \mathbf{y})$ in (4.16a), and $+2\eta f(\mathbf{e}_0 \cdot \boldsymbol{\lambda})(\mathbf{e}_0 \cdot \mathbf{y})$ in (4.17) should read $+2f(\mathbf{e} \cdot \boldsymbol{\lambda})(\mathbf{e} \cdot \mathbf{y})\Re(\epsilon, \mathbf{q})$, $-2\eta f(\mathbf{e} \cdot \boldsymbol{\lambda})(\mathbf{e} \cdot \mathbf{y})$, and $-2\eta f(\mathbf{e}_0 \cdot \boldsymbol{\lambda})(\mathbf{e}_0 \cdot \mathbf{y})$, respectively. In line 14 after Eq. (4.18), $d\theta > 0 (< 0)$ should read $d\theta < 0 (> 0)$.

Pseudodipolar Anisotropy in Cubic Ferromagnets at Low Temperatures, S. H. CHARAP AND P. R. WEISS [Phys. Rev. **116**, 1372 (1959)]. In the solution [Eq. (41)] of Eq. (40), certain terms peculiar to the face-centered cubic lattice and characterized by the parameter B (see Appendix A) have been omitted. The solution which has been given is, for the fcc, but the leading term in an expansion of the exact solution in powers of $B/4\pi(1 - \gamma_j)$ ($\approx 7 \times 10^{-3}$). The remaining terms are those which arise in the orders of perturbation theory beyond

the second because of the exchange collision interaction and, as already noted in Appendix B, they are negligible. We give the exact solution to Eq. (40):

$$\rho_l = -\frac{\epsilon}{2J} \frac{4\pi(1-\gamma_j)(l^+)^2 + B(l^{*+})^2}{[4\pi(1-\gamma_j)]^2 - B^2}.$$

The nearest neighbor sum, Eq. (A5), is incorrect and should be $-2(1+3\Gamma)$. Therefore, a number of the results for the fcc should be corrected. In Eq. (18), instead of "2.39" read "2.52"; in Eq. (19), instead of "1/4.45" read "1/5"; in the last equation of Appendix A, the coefficients of $B/2\pi$ within the [] are $-\frac{1}{4}(1+3\Gamma)$ and $-15(\Gamma-\frac{1}{5})$ in that order.

Anisotropy of the Intrinsic Domain Magnetization of a Ferromagnet, S. H. CHARAP [Phys. Rev. **119**, 1538 (1960)]. The following corrections do not significantly alter the results of this paper. On the right-hand side of Eq. (32) read $-2(1+3\Gamma)$. In Eqs. (35), (36), and (37) the entries on the right-hand sides of the braces for the face-centered cubic lattice should be $(3/1280)(5+3\Gamma)$, $0.0558(5+2\Gamma)$, and 1.507, respectively. Equation (39) becomes $M_\beta \approx -4.1 \times 10^{-4} M_0$, and in the third line below Eq. (39), instead of $\frac{1}{5}$ read $\frac{1}{6}$.

Hyperfine Structure of Hydrogen, Deuterium, and Tritium, L. WILMER ANDERSON, FRANCIS M. PIPKIN, AND JAMES C. BAIRD, JR. [Phys. Rev. **120**, 1279 (1960)]. On page 1288, the expression

$$\delta_{H-T} = \frac{[A(H)/A(T)][m(T)/m(H)]}{g(H)/g(T)} - 1 = 0.0000058 \pm 0.0000001$$

should read

$$\delta_{H-T} = \frac{[A(H)/A(T)][m(T)/m(H)]^3}{g(H)/g(T)} - 1 = 0.0000058 \pm 0.0000001.$$

A similar omission was made for δ_{H-D} .

Breadth of the F Band in NaCl, A. M. KARO, C. W. MCCOMBIE, AND A. M. MURRAY [Phys. Rev. **119**, 504 (1960)]. In the calculation of the generalized forces on the lattice vibration modes a mistake was made in interpreting the data which Dr. Karo supplied on the modes of the perfect lattice. In effect the wave numbers of all modes were doubled. After correction the calculated breadth of the F band at 0°K is reduced by about 12%. The main peak of the histogram of contributions to the mean square breadth from modes in the various frequency ranges is shifted to a higher frequency ($\omega = 4.25 \times 10^{13} \text{ sec}^{-1}$) and no longer agrees with the empirical configuration coordinate frequency ($\omega = 2.76 \times 10^{13} \text{ sec}^{-1}$). As a result the temperature dependence now obtained for the breadth of the band is not appreciably

better than in previous absolute calculations by other workers.

As was stated, the main assumption in the calculation was that the effect of the imperfection on the normal modes could be neglected. The results of the revised calculation therefore suggest that satisfactory agreement with experiment cannot be obtained without considering the modification of the lattice vibration modes by the imperfection.

Positronium Decay in Molecular Substances, WERNER BRANDT, S. BERKO, AND W. W. WALKER [Phys. Rev. **120**, 1289 (1960)]. In Eqs. (1), (3), and (5), and in the *numerator* of Eq. (14), read r_e instead of r_0 , where $r_e = e^2/mc^2 = 2.82 \times 10^{-13} \text{ cm}$ as given in the first line following Eq. (2). In the second line preceding Eq. (17), read $\tau_0 = (\pi r_e^2 c \rho_0)^{-1}$ instead of $\tau_1 = (\pi r_0^2 c \rho_0)^{-1}$.

Electron Paramagnetic Resonance of Manganese in TiO_2 , HARRO G. ANDRESEN, [Phys. Rev. **120**, 1606 (1960)]. In the abstract the E parameter should read $|E| = 3.88 \text{ kMc/sec}$ instead of $|E| = 0.388 \text{ kMc/sec}$. Reference 3 should be amended to read as follows: K. A. Mueller, Phys. Rev. Letters **2**, 341 (1959).

Magnetic Resonance Determination of the Nuclear Moment of Tantalum-181 in KTaO_3 , LAWRENCE H. BENNETT AND J. I. BUDNICK [Phys. Rev. **120**, 1812 (1960)]. The following table was inadvertently omitted.

TABLE I. Experimental values of the nuclear magnetic resonance of Ta^{181} in KTaO_3 .

Magnetic field (oersteds)	Frequency (Mc/sec)	(nm)
7863	4.007	2.340
8609	4.388	2.341
9118	4.646	2.340
9947	5.068	2.340
10 650	5.429	2.341
11 550	5.887	2.341
12 330	6.280	2.339
12 990	6.620	2.340

Cross Section and Polarization in the Photodisintegration of the Deuteron, M. L. RUSTGI, W. ZERNIK, G. BREIT, AND D. J. ANDREWS [Phys. Rev. **120**, 1881 (1960)]. In Eq. (18.10) the term $I_2^b(\sin^4\theta \cos^2\varphi - \frac{1}{3})$ should read $I_2^b(\sin^2\theta \cos^2\varphi - \frac{1}{3})$. The correction is typographical and does not affect other parts of the paper.

Self-Diffusion in Liquid He^3 , DANIEL HONE [Phys. Rev. **121**, 669 (1961)]. Equation (19) should read:

$$q = \frac{32\pi^2 \hbar^6}{m^{*3} T^2} \left\{ \left[\frac{w(\theta, \phi)(1 - \cos\theta)(1 - \cos\phi)}{\cos(\theta/2)} \right]_{\text{av}} \right\}^{-1}.$$

The numerical calculations have been done correctly.