Extending the parallelism, each of us predicted and apparently detected coupling between first and second sound instigated by the action of semi-impervious boundaries (acting differently toward the two fluid components because of their independent viscosity characteristics). Being primarily concerned with pulsing methods, the writer investigated theoretically[10] the transformations between the two modes of propagation upon reflection from porous boundaries, and believes to have obtained evidence subsequently[5,6] for this process. Consistent with the resonance method Peshkov succeeded in generating[1] simultaneously both first and second sound by vibrating a piston adjacent to a perforated screen. By means of this *filtration* method he observed proportions of first and second sound transmitted in general agreement with the boundary conditions presumed to hold.

The pulse method would seem to be somewhat more convenient than resonance techniques for observing[6] quantitatively such phenomena as the Lane[11] type of conversion at the liquid helium II free surface. Similarly the low heat input fits it for extending velocity measurements to the adiabatic demagnetization range.

It is a privilege to call attention to the parallelisms and agreements displayed between the programs of Peshkov and the writer, and to have been able to substantiate and in some measure add to Peshkov's elegant work.

[1] V. P. Peshkov, J. Exper. Theor. Phys. U.S.S.R. **18**, 857 (1948).
[2] V. P. Peshkov, J. Exper. Theor. Phys. U.S.S.R. **18**, 867 (1948).
[3] V. P. Peshkov, J. Exper. Theor. Phys. U.S.S.R. **18**, 951 (1948).
[4] J. Pellam, M. I. T. Research Laboratory of Electronics Quarterly Progress Report, July 15 (1948).
[5] J. Pellam, Phys. Rev. **74**, 841 (1948).
[6] J. Pellam, Phys. Rev. **75**, 1183 (1949).
[7] L. Tisza, J. de Phys. et rad. **1**, 165, 350 (1940); Phys. Rev. **72**, 838 (1947); also Phys. Rev. **75**, 885 (1949).
[8] L. Landau, J. Phys. U.S.S.R. **5**, 71 (1941); J. Phys. U.S.S.R. **8**, 1 (1944); also Phys. Rev. **75**, 884 (1949).
[9] V. Peshkov, J. Phys. **10**, 389 (1946).
[10] J. Pellam, Phys. Rev. **73**, 608 (1948).
[11] Lane, Fairbank, Schultz, and Fairbank, Phys. Rev. **70**, 431 (1946); also Phys. Rev. **71**, 600 (1947).
* Supported by the ONR, Contract Na-onr 12-48.
** Summarized in reference 6.
*** We are indebted to Dr. P. M. Marcus of the ONR for making translated copies available to us; these arrived while the summary (reference 6) was in press.
**** Concerning the difference between these values, it is pointed out that some distortion may have resulted from the non-uniform heat flow density of the circularly symmetrical pulses used by the writer. Measurements are nearing completion here on overdriven second sound pulses of uniform heat flow density.

Erratum: The Infra-Red Spectrum and Molecular Constants of $C^{12}O^{16}$ and $C^{13}O^{16}$

[Phys. Rev. **72**, 284 (1947)]

Robert T. Lagemann,† Alvin H. Nielsen,†† and Fred P. Dickey
The Ohio State University, Columbus, Ohio
May 11, 1949

An error has recently been pointed out to the authors in Eqs. (13) and (14) which causes a numerical error in several of the constants in Table IV. The correct form of these equations is

$$x_e\omega_e = -\tfrac{1}{4}[6k_{1111} - 15(k_{111}{}^2/\omega_e)] \tag{13}$$

and

$$\alpha = -6(B_e/\omega_e)[B_e + k_{111}(2B_e/\omega_e)^{\frac{1}{2}}]. \tag{14}$$

The correct values of the affected constants in Table IV are:
$k_{111} = -123.79$ cm^{-1}, $k_{111}' = -119.68$ cm^{-1},
$k_{1111} = 8.84$ cm^{-1}, $k_{1111}' = 8.45$ cm^{-1},
$x_e\omega_e' = 12.68$ cm^{-1} (calc.)*** $\omega_e' = 2121.41$ cm^{-1} (calc.)*
$\alpha' = 0.0164$ cm^{-1} (calc.)****

† Emory University, Emory University, Georgia.
†† The University of Tennessee, Knoxville, Tennessee.

Addendum: Energy Spectrum of the Decay Particles and the Mass and Spin of the Mesotron

[Phys. Rev. **75**, 1432 (1949)]

Robert B. Leighton, Carl D. Anderson, and Aaron J. Seriff
California Institute of Technology, Pasadena, California
May 16, 1949

The decay electrons originating in the copper-walled Geiger counter show a much greater ratio of negative to positive electrons (4 neg. and 8 pos.) than one would expect from mesotrons stopping in copper, where nuclear capture of a negative mesotron is highly probable. The high proportion of negative electrons observed is explained by the fact that a portion of the counter assembly contained beeswax in which some of the mesotrons may have decayed.