Erratum: "Thermal diffusion and mixture separation in the acoustic boundary layer" [J. Acoust. Soc. Am. 106, 1794–1800 (1999)]

G. W. Swift and P. S. Spoor
Condensed Matter and Thermal Physics Group, Los Alamos National Laboratory, Los Alamos, New Mexico 87545

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In the first paragraph of Sec. IV, the statement ''...while the total mass flux density $\overline{\rho u}$ remains zero'' is wrong. In the situation we are considering, with sealed reservoirs at the ends of the channel, the total time-averaged *mole* flux is zero, as the mole flux of the heavy component in one direction equals that of the light component in the other direction. Hence, nonzero net mass must flow in the direction that the heavy component flows.

It is easy to show that this net time-averaged second-order mass flux is

$$\dot{M}_2 = \dot{M}_{H,2}(1 - m_L/m_H) \tag{46a}$$

when the mole fluxes are equal and opposite, and that the time-averaged second-order mass flux of the heavy component is

$$\dot{M}_{H,2} \equiv A\langle\overline{\rho c u}\rangle_2 = \frac{A\rho_m}{2}\mathrm{Re}[\langle c_1\widetilde{u_1}\rangle] + c_m\dot{M}_2 . \tag{46b}$$

These equations should replace Eq. (46) in the manuscript. Equations (48) and (49) give expressions for $\rho_m\,\mathrm{Re}[\langle c_1\widetilde{u_1}\rangle]/2$, not for $\langle\overline{\rho c u}\rangle_2$.

Finally, by combining Eqs. (46a) and (46b) to eliminate $\dot{M}_2$ and solving for $\dot{M}_{H,2} \equiv m_H\dot{N}_{H,2}$, we arrive at Eq. (52), which is correct as written.

We are grateful to Drew Geller for bringing this error to our attention.

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