ERRATA

$^{12}C(^{12}C, \alpha)^{20}Ne$: DIRECT REACTION WITH A DIFFERENCE. J. V. Noble [Phys. Rev. Lett. 28, 111 (1972)].

The fixed-angle excitation functions of reactions like $^{12}C(^{12}C, \alpha)^{20}Ne$ are observed to contain both coarse ($\Gamma \sim 5-10$ MeV) and fine ($\Gamma \sim 1-2$ MeV) structure. I reported that both types of structure could be understood as interference between several terms of a direct amplitude in which ^8Be is transferred with various spins. Recently, S. C. Headley and H. T. Fortune have pointed out to me that the fine structure exhibited in the calculation was an artifact of interpolating tabulated Coulomb wave functions over two-dimensional regions of the variables kR and $Z_1 Z_2 \propto M/k$, in which the functions vary too rapidly for successful interpolation. I have repeated the calculation (using a better code than was available to me in 1972) and conclude that Headley and Fortune are correct. However, the coarse structure survives in the recalculation, so it is still possible to interpret strong bumps of width 5–10 MeV as this kind of direct-direct interference.

The paper's conclusion that the observed behavior of these heavy-ion reactions could be interpreted purely in terms of direct processes must therefore be changed: I now believe that the fine structure in the excitation functions must be regarded as modification of one or more high partial waves by a quasimolecular resonance (in either entrance or exit channel). In other words, we must invoke compound as well as direct processes in order to explain the data.

I am grateful to Dr. Headley and Dr. Fortune for bringing the error to my attention.

CONDUCTION-BAND SURFACE PLASMONS IN THE ELECTRON-ENERGY-LOSS SPECTRUM OF GaAs(110). R. Matz and H. Lüth [Phys. Rev. Lett. 46, 500 (1981)].

On page 502, Eq. (4) (with the missing ϵ_0 inserted) should read

$$\frac{1}{|R|^2}\frac{d^2S}{d\Omega\, d(\hbar\omega)} = \frac{m^2 e^2 v_\perp^2}{\hbar^4 \pi^3 \epsilon_0 \cos\theta}\frac{k_s}{k_I}[N(\omega)+1]\frac{v_\perp^2 q_\parallel}{[v_\perp^2 q_\parallel^2 + (\omega - \vec{v}_\parallel \cdot \vec{q}_\parallel)^2]^2}\,\mathrm{Im}\frac{-1}{1+\epsilon(\omega, q_\parallel)}.$$