ERRATA

RADIATION OF MULTIPOLES

BY KARL F. HERZFELD
Department of Physics, The Johns Hopkins University

(Phys. Rev. **37**, 253, 1931)

In a paper which appeared under this title there are unfortunately some mistakes, the correct formulas are given below:
On page 256 the following formula (9)

$$\psi = \sum c_k \psi_k e^{-2\pi i k \nu t} \qquad \psi_k = e^{-\zeta^2/2} H_k(\zeta) b_k$$

Same page, before formula (10)

$$b_k = \left(2^{-k}\frac{1}{k!}\left(\frac{4\pi M\nu}{h}\right)^{1/2}\right)^{1/2}.$$

Instead of formula (16) on page 258

$$a_i^{(k)} = \frac{k!}{i!}2^i(-1)^{(k-i)/2}\frac{1}{\left(\frac{k-i}{2}\right)!} \text{ for } k-i \text{ even.} \tag{16}$$

At the bottom of page 258 and on top of 259.

$$\begin{aligned} I_{k,s}^{(n)} &= 0 \text{ if } s-n \text{ odd} \\ &= \pi^{1/2}\sum_{j=0}^{(n-s)/2}\frac{(4j)!}{2^{4j}(2j)!}(2j+k+s)\cdots(2j+1) \\ &\quad (-1)^{j+(s-n)/2}2^{2j+k+s-n}k!\frac{1}{\left(\frac{n-s}{2}-j\right)!}\frac{1}{(2j+k+s-n)!} \\ &= \pi^{1/2}(-1)^{(s-n)/2}2^{k+s-n}k!\sum_{j=0}^{q}(-1)^j\frac{(4j)!}{(2j)!^2}\frac{1}{4^j}(2j+k+s)! \\ &\quad \times\frac{1}{(q-j)!}\frac{1}{(2j+k-q)!} \end{aligned} \tag{17}$$

with $n-s=2q$.

Finally for the formulas which occur in the middle of page 259

$$I_{k,2}^{(2)} = (\pi)^{1/2}2^k k!\frac{(k+2)!}{(k!)} = (\pi)^{1/2}2^k(k+2)!$$

If $n=3$ (tetraeder) there are possible two transitions
$s=1$, frequency ν

$$\begin{aligned} I_{k,1}^{(3)} &= -(\pi)^{1/2}2^{k-2}k!\left\{\frac{(k+1)!}{(k-1)!}-\frac{4!}{(2!)^2}\frac{1}{4}\frac{(k+3)!}{(k+1)!}\right\} \\ &= +(\pi)^{1/2}2^{k-2}\left\{\frac{3}{2}(k+2)(k+3)-k(k+1)\right\}k! \end{aligned}$$

$s=3$ frequency 3ν

$$I_{k,3}^{(3)} = (\pi)^{1/2}2^k\frac{k!(k+3)!}{k!} = (\pi)^{1/2}(k+3)!2^k.$$

In general, we have for $s=n$, frequency $n\nu$

$$I_{kn}^{(n)} = (\pi)^{1/2}2^k\frac{k!(k+s)!}{k!} = (\pi)^{1/2}2^k(k+j)! \tag{18}$$