tained from Figure 5 agrees well with that given in Figure 1.

For a 5-cm sphere that simulates the head of an infant exposed to 918-MHz radiation, the peak pressure at the center is 9.61 dyne/cm^2 as seen from Figures 6 and 7. This curve was obtained by letting $N = 3$ in the approximated microwave-absorption pattern. The displacement in this case is approximately 9.34×10^{-13} m for a peak absorption of 1 W/g and an incident power density of 1282 mW/cm^2. As before, the pulse width is assumed to be 10 μsec. Again, good agreement is found between the fundamental frequency of mechanical oscillation and that predicted in Figure 1 for a 5-cm sphere.

Figures 8 and 9 present the pressure and displacement in a 7-cm sphere that simulates the head of an adult irradiated by 918-MHz microwaves. Again, the pulse width is 10 μsec and the peak absorption is 1 W/g, which corresponds to 2183 mW/cm^2 of incident plane wave power. The calculated peak pressure is 6.82 dyne/cm^2 and the displacement is about 3.97×10^{-13} meters. A careful examination reveals that the pressure values obtained are in qualitative agreement with results obtained experimentally at 1245-MHz [*Frey and Messenger*, 1973; *Lin*, 1976c]. It should be noted that specific measurements of the human response to 918-MHz radiation have not been reported to date.

Table 2 is a summary of peak pressures and displacements in four animals as irradiated by 10-μsec pulses at the same level of absorbed energy. The incident power

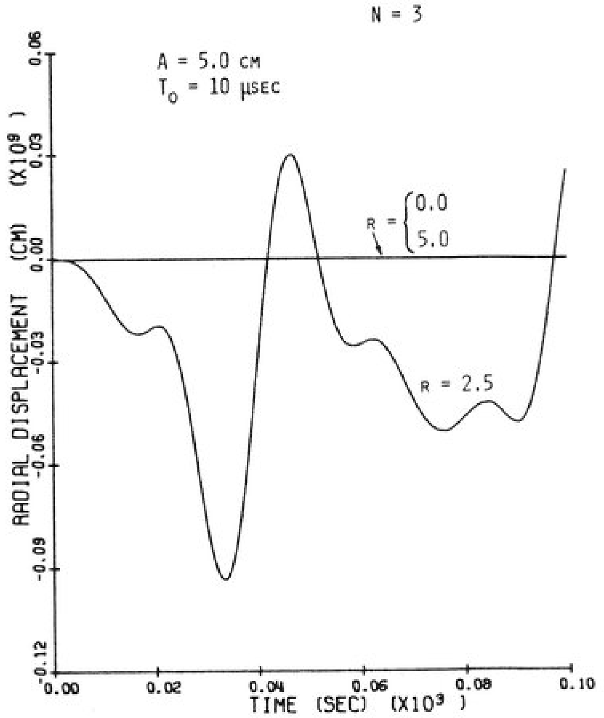

Fig. 7. Displacement produced in a spherical head of 5-cm radius.

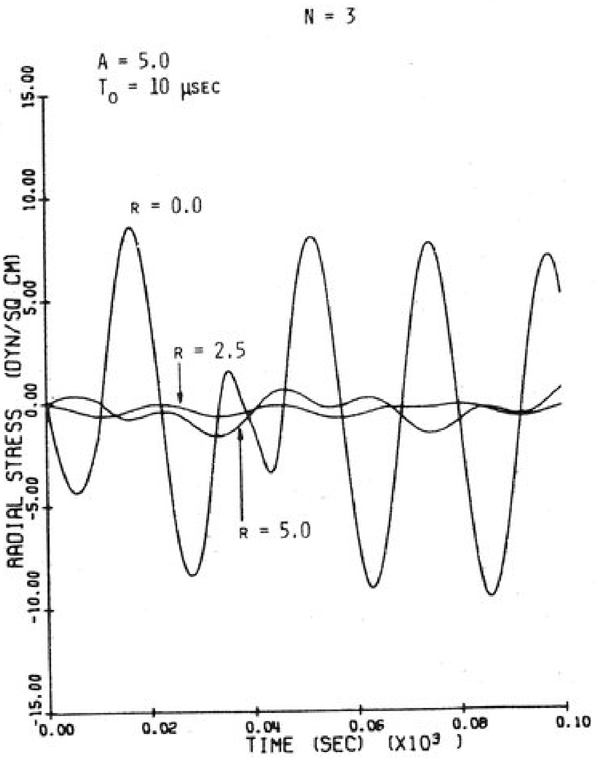

Fig. 6. Sound pressure generated in a sphere of 5-cm radius that simulates a human infant's head exposed to 918-MHz radiation.

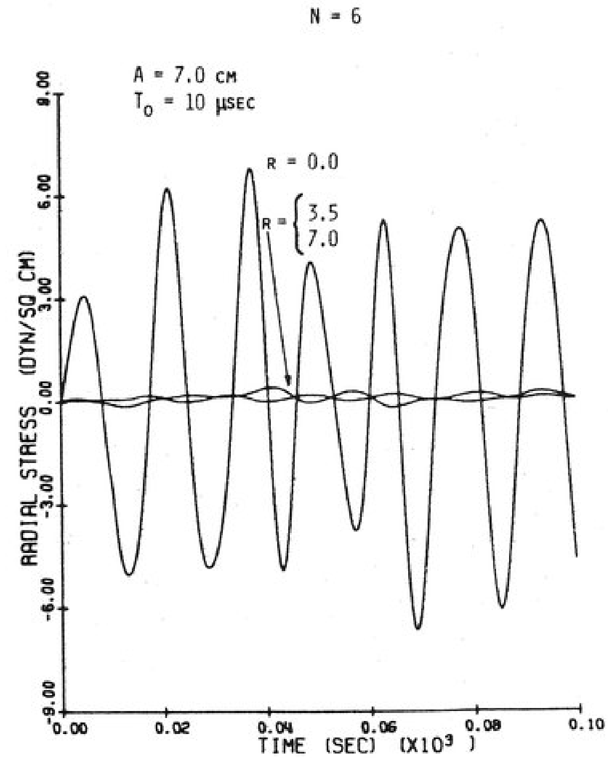

Fig. 8. Sound pressure generated in a sphere of 7-cm radius that simulates a human adult's head exposed to 918-MHz radiation.