believe our knowledge is sufficient to obtain an ft value and to decide whether the transition (or part of it) goes to the ground state or an excited state.

The mirror nuclei in which the number of initial protons are equal with those of final neutrons are omitted for shortness since we have nothing new to add to their discussions. As is well known, they form a very distinct group of superallowed transitions with log ft values in the narrow range from 3.3 to 3.7 and with no over-all trend from H^3 to Ti^{43}.

While the master Table III, Section D, contains all available material, it is instructive to group the transitions according to type. This is done in Table II for all those decays which go at least partially to the ground state of the final nucleus and where the empirical evidence seems to be sufficiently clear. The table gives the isotope as identified by its charge, chemical symbol and mass number, the type and energy of its transition, the number of the initial and final odd nucleons in this order (the larger numbers refer always to the neutron), the assignment of orbitals, and the value of log ft. Further details can be obtained by reference to the master Table III, Section D.

TABLE II

The main result of an inspection of Table II is the close correlation of type of transition and shell structure and comparatively small amount of straggling of log ft values within each group.

The members of the allowed group with the assignments $\Delta\ell=0$, $\Delta I=0,1$ have, without exception, the initial and final odd nucleon group in the same shell. There is no trend in ft values with atomic number up to Nd^{141} (which occurs at the highest place where allowed transitions to the ground state can be expected). This absence of a trend, which will be found also in all