There are still quite a few ambiguities in the interpretation as noted in the footnotes in Table III. There are also a considerable number of cases where the facts are not well known. However, no outstanding difficulties occur whenever the characteristics of the transitions are definitely established. There can thus be little doubt as to the correctness of the scheme presented here.

As the main results we may summarize: The Schmidt groups give definite indication of the parities of the nuclear states which in turn are closely correlated with the shell numbers. The character of the ground states of a nucleus with one odd nucleon group is essentially determined by the number of nucleons in this group in formal agreement with the rules of the spin-orbit coupling model.

The success of the scheme, however, does not give support to an extreme one particle model. On the contrary, the clear distinction between the super-allowed transitions of the mirror nuclei and the normal allowed group (unfavored allowed in Wigner's terminology) shows clearly the inadequacy of the one particle model. The difference in ft values for these two groups is of the order of 30 to 40, that is, a difference in the matrix elements of the order of 5 to 6. It will be the task of future theories of nuclear structure and β-decay, especially the establishing of the form of the interaction hamiltonian, to explain this ratio and other ratios between the probabilities of the various types of transitions.

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