

8. The three P isotopes furnish an instructive example for the working of the shell scheme. All three must be assumed to have spin 1. P^{32} is Δ -forbidden. The orbital for the 15 protons in P^{34} has to be assumed to be $d_{5/2}$ to explain the allowed character of its decay. An alternative interpretation is $s_{1/2}$ - $s_{1/2}$.
9. The shell scheme suggests strongly a series γ -ray for this transition, which is by no means excluded by the experimental evidence. The coupling rule in its narrower form demands, of course, only that the spin is 0.
10. Lifetime and shape of spectrum both suggest a spin 3 for C^{36} , while the reported evidence for spin 2 does not seem to be forcing.
11. K^{40} constitutes the most notable exception to the spin rule, which would predict a spin of 2 in place of the observed 4. The alternative possible configuration $s_{1/2}$ - $f_{7/2}$ would give a spin 4, but would make it difficult to explain the observed magnetic moment.
12. It cannot be decided whether the configurations of 25 nucleons are $F_{5/2}$ or $f_{7/2}$. They couple with $f_{7/2}$ and $p_{3/2}$ opposites always to a high resultant spin.
13. Insufficient experimental evidence.
14. Experimental evidence insufficient. However, $f_{5/2}$ orbits for the odd neutrons seem to occur in other Ni isotopes.
15. Cu^{64} presents a definite difficulty for the shell scheme. The interpretation of the table ($p_{3/2}$ - $f_{5/2}$) makes its transition Δ -forbidden with an abnormally low ft value. The natural $p_{3/2}$ - $p_{3/2}$ combination should lead to a high resultant spin according to the composition rule.
16. This transition should be highly forbidden since this is also the case for the odd-odd product nucleus Ga^{72} .
17. This not too well investigated isotope poses a difficulty. The transition