end of the **shells** of 50, 82, and 126, where the levels of lowest angular momentum of one oscillator level almost coincide in energy with those of highest angular momentum from the next oscillator level. One is lead to the prediction that for nuclei of odd A isomerism should occur between **39** Z or N :!E 49. This is the region where the $g_{9}1_{2}$ *and* $p_{1}/2$ levels have closely the same energy and compete for the ground state. From **51 on** there is **a** competition between *g7/2 and d5/2,* which would not lead to **long-lived** isomers. Later in the shell, from about 65 on., competition should occur between the $h_{ii}/2$ and the sl/2 and $d_{3}1_{2}$ levels, and the occurrence of **isom-**erism is predicted between 65 `j- Z or N ~ 81. The beginning of the new shell should again be free of isomerism. The experimental facts bear out the conclusions exceedingly well. Below are listed the number of long-lived isomeric states known and listed as A in the table by Seaborg and Perlman. Only isomers of odd A are used, and these are attributed to the odd one of the numbers N or Z.

• or Z =	*29*	*31 - 37*	*39*	*41*	*43*	*45*	*47*	*49*	*51 - 61*	
• of isomers =	1	0	3	3	3	2	*5*	*4*	*0*	

• or Z -	63	65	*67*	*69*	*71*	*73*	*75*	*77*	*79*	*81* *83*
• of isomers -	1	1	4	1	2	2	2	2	2	0

In both regions, the level of high spin has opposite parity to the one of low spin. Consequently, one would expect electric ^{5th} pole and magnetic 4th pole radiation to'occur, but not electric 4th pole.