

Table 1:  $SU(6)$  classification of confirmed baryons listed by the PDG. The labels  $S$ ,  $L$  and  $n$  refer to the internal spin, orbital angular momentum and radial quantum number respectively. The  $\Delta_{\frac{5}{2}}^{-}(1930)$  does not fit the  $SU(6)$  classification since its mass is too low compared to other members **70**-multiplet for  $n = 0$ ,  $L = 3$ .

$SU(6)$	$S$	$L$	$n$	Baryon State			
<b>56</b>	$\frac{1}{2}$	0	0	$N_{\frac{1}{2}}^{+}(940)$			
	$\frac{1}{2}$	0	1	$N_{\frac{1}{2}}^{+}(1440)$			
	$\frac{1}{2}$	0	2	$N_{\frac{1}{2}}^{+}(1710)$			
	$\frac{3}{2}$	0	0	$\Delta_{\frac{3}{2}}^{+}(1232)$			
	$\frac{3}{2}$	0	1	$\Delta_{\frac{3}{2}}^{+}(1600)$			
<b>70</b>	$\frac{1}{2}$	1	0	$N_{\frac{1}{2}}^{-}(1535)$	$N_{\frac{3}{2}}^{-}(1520)$		
	$\frac{3}{2}$	1	0	$N_{\frac{1}{2}}^{-}(1650)$	$N_{\frac{3}{2}}^{-}(1700)$	$N_{\frac{5}{2}}^{-}(1675)$	
	$\frac{3}{2}$	1	1	$N_{\frac{1}{2}}^{-}$	$N_{\frac{3}{2}}^{-}(1875)$	$N_{\frac{5}{2}}^{-}$	
	$\frac{1}{2}$	1	0	$\Delta_{\frac{1}{2}}^{-}(1620)$	$\Delta_{\frac{3}{2}}^{-}(1700)$		
<b>56</b>	$\frac{1}{2}$	2	0	$N_{\frac{3}{2}}^{+}(1720)$	$N_{\frac{5}{2}}^{+}(1680)$		
	$\frac{1}{2}$	2	1	$N_{\frac{3}{2}}^{+}(1900)$	$N_{\frac{5}{2}}^{+}$		
	$\frac{3}{2}$	2	0	$\Delta_{\frac{1}{2}}^{+}(1910)$	$\Delta_{\frac{3}{2}}^{+}(1920)$	$\Delta_{\frac{5}{2}}^{+}(1905)$	$\Delta_{\frac{7}{2}}^{+}(1950)$
<b>70</b>	$\frac{1}{2}$	3	0	$N_{\frac{5}{2}}^{-}$	$N_{\frac{7}{2}}^{-}$		
	$\frac{3}{2}$	3	0	$N_{\frac{3}{2}}^{-}$	$N_{\frac{5}{2}}^{-}$	$N_{\frac{7}{2}}^{-}(2190)$	$N_{\frac{9}{2}}^{-}(2250)$
	$\frac{1}{2}$	3	0		$\Delta_{\frac{5}{2}}^{-}$	$\Delta_{\frac{7}{2}}^{-}$	
<b>56</b>	$\frac{1}{2}$	4	0	$N_{\frac{7}{2}}^{+}$	$N_{\frac{9}{2}}^{+}(2220)$		
	$\frac{3}{2}$	4	0	$\Delta_{\frac{5}{2}}^{+}$	$\Delta_{\frac{7}{2}}^{+}$	$\Delta_{\frac{9}{2}}^{+}$	$\Delta_{\frac{11}{2}}^{+}(2420)$
<b>70</b>	$\frac{1}{2}$	5	0	$N_{\frac{9}{2}}^{-}$	$N_{\frac{11}{2}}^{-}$		
	$\frac{3}{2}$	5	0	$N_{\frac{7}{2}}^{-}$	$N_{\frac{9}{2}}^{-}$	$N_{\frac{11}{2}}^{-}(2600)$	$N_{\frac{13}{2}}^{-}$