

Baryon Summary Table

This short table gives the name, the quantum numbers (where known), and the status of baryons in the Review. Only the baryons with 3- or 4-star status are included in the main Baryon Summary Table. Due to insufficient data or uncertain interpretation, the other entries in the short table are not established as baryons. The names with masses are of baryons that decay strongly. For N , Δ , and Ξ resonances, the partial wave is indicated by the symbol $L_{2l,2J}$, where L is the orbital angular momentum (S , P , D , ...), l is the isospin, and J is the total angular momentum. For Λ and Σ resonances, the symbol is $L_{l,2J}$.

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|-----------|------------|------|------------------|------------|------|-----------------|----------|------|----------------|----------|------|---------------------|----------|------|
| ρ | P_{11} | **** | $\Delta(1232)$ | P_{33} | **** | Λ | P_{01} | **** | Σ^+ | P_{11} | **** | Ξ^0 | P_{11} | **** |
| n | P_{11} | **** | $\Delta(1600)$ | P_{33} | *** | $\Lambda(1405)$ | S_{01} | **** | Σ^0 | P_{11} | **** | Ξ^- | P_{11} | **** |
| $N(1440)$ | P_{11} | **** | $\Delta(1620)$ | S_{31} | **** | $\Lambda(1520)$ | D_{03} | **** | Σ^- | P_{11} | **** | $\Xi(1530)$ | P_{13} | **** |
| $N(1520)$ | D_{13} | **** | $\Delta(1700)$ | D_{33} | **** | $\Lambda(1600)$ | P_{01} | *** | $\Sigma(1385)$ | P_{13} | **** | $\Xi(1620)$ | | * |
| $N(1535)$ | S_{11} | **** | $\Delta(1750)$ | P_{31} | * | $\Lambda(1670)$ | S_{01} | **** | $\Sigma(1480)$ | | * | $\Xi(1690)$ | | *** |
| $N(1650)$ | S_{11} | **** | $\Delta(1900)$ | S_{31} | ** | $\Lambda(1690)$ | D_{03} | **** | $\Sigma(1560)$ | | ** | $\Xi(1820)$ | D_{13} | *** |
| $N(1675)$ | D_{15} | **** | $\Delta(1905)$ | F_{35} | **** | $\Lambda(1800)$ | S_{01} | *** | $\Sigma(1580)$ | D_{13} | * | $\Xi(1950)$ | | *** |
| $N(1680)$ | F_{15} | **** | $\Delta(1910)$ | P_{31} | **** | $\Lambda(1810)$ | P_{01} | *** | $\Sigma(1620)$ | S_{11} | ** | $\Xi(2030)$ | | *** |
| $N(1700)$ | D_{13} | *** | $\Delta(1920)$ | P_{33} | *** | $\Lambda(1820)$ | F_{05} | **** | $\Sigma(1660)$ | P_{11} | *** | $\Xi(2120)$ | | * |
| $N(1710)$ | P_{11} | *** | $\Delta(1930)$ | D_{35} | *** | $\Lambda(1830)$ | D_{05} | **** | $\Sigma(1670)$ | D_{13} | **** | $\Xi(2250)$ | | ** |
| $N(1720)$ | P_{13} | **** | $\Delta(1940)$ | D_{33} | * | $\Lambda(1890)$ | P_{03} | **** | $\Sigma(1690)$ | | ** | $\Xi(2370)$ | | ** |
| $N(1900)$ | P_{13} | ** | $\Delta(1950)$ | F_{37} | **** | $\Lambda(2000)$ | | * | $\Sigma(1750)$ | S_{11} | *** | $\Xi(2500)$ | | * |
| $N(1990)$ | F_{17} | ** | $\Delta(2000)$ | F_{35} | ** | $\Lambda(2020)$ | F_{07} | * | $\Sigma(1770)$ | P_{11} | * | | | |
| $N(2000)$ | F_{15} | ** | $\Delta(2150)$ | S_{31} | * | $\Lambda(2100)$ | G_{07} | **** | $\Sigma(1775)$ | D_{15} | **** | Ω^- | | **** |
| $N(2080)$ | D_{13} | ** | $\Delta(2200)$ | G_{37} | * | $\Lambda(2110)$ | F_{05} | *** | $\Sigma(1840)$ | P_{13} | * | $\Omega(2250)^-$ | | *** |
| $N(2090)$ | S_{11} | * | $\Delta(2300)$ | H_{39} | ** | $\Lambda(2325)$ | D_{03} | * | $\Sigma(1880)$ | P_{11} | ** | $\Omega(2380)^-$ | | ** |
| $N(2100)$ | P_{11} | * | $\Delta(2350)$ | D_{35} | * | $\Lambda(2350)$ | H_{09} | ** | $\Sigma(1915)$ | F_{15} | **** | $\Omega(2470)^-$ | | ** |
| $N(2190)$ | G_{17} | **** | $\Delta(2390)$ | F_{37} | * | $\Lambda(2585)$ | | ** | $\Sigma(1940)$ | D_{13} | *** | | | |
| $N(2200)$ | D_{15} | ** | $\Delta(2400)$ | G_{39} | ** | | | | $\Sigma(2000)$ | S_{11} | * | Λ_c^+ | | **** |
| $N(2220)$ | H_{19} | **** | $\Delta(2420)$ | $H_{3,11}$ | **** | | | | $\Sigma(2030)$ | F_{17} | **** | $\Lambda_c(2593)^+$ | | *** |
| $N(2250)$ | G_{19} | **** | $\Delta(2750)$ | $l_{3,13}$ | ** | | | | $\Sigma(2070)$ | F_{15} | * | $\Lambda_c(2625)^+$ | | *** |
| $N(2600)$ | $l_{1,11}$ | *** | $\Delta(2950)$ | $K_{3,15}$ | ** | | | | $\Sigma(2080)$ | P_{13} | ** | $\Lambda_c(2765)^+$ | | * |
| $N(2700)$ | $K_{1,13}$ | ** | | | | | | | $\Sigma(2100)$ | G_{17} | * | $\Lambda_c(2880)^+$ | | ** |
| | | | $\Theta(1540)^+$ | | * | | | | $\Sigma(2250)$ | | *** | $\Sigma_c(2455)$ | | **** |
| | | | | | | | | | $\Sigma(2455)$ | | ** | $\Sigma_c(2520)$ | | *** |
| | | | | | | | | | $\Sigma(2620)$ | | ** | $\Sigma_c(2800)$ | | *** |
| | | | | | | | | | $\Sigma(3000)$ | | * | Ξ_c^+ | | *** |
| | | | | | | | | | $\Sigma(3170)$ | | * | Ξ_c^0 | | *** |
| | | | | | | | | | | | | $\Xi_c^{'+}$ | | *** |
| | | | | | | | | | | | | $\Xi_c^{'0}$ | | *** |
| | | | | | | | | | | | | $\Xi_c(2645)$ | | *** |
| | | | | | | | | | | | | $\Xi_c(2790)$ | | *** |
| | | | | | | | | | | | | $\Xi_c(2815)$ | | *** |
| | | | | | | | | | | | | Ω_c^0 | | *** |
| | | | | | | | | | | | | Ξ_{cc}^+ | | * |
| | | | | | | | | | | | | Λ_b^0 | | *** |
| | | | | | | | | | | | | Ξ_b^0, Ξ_b^- | | * |

**** Existence is certain, and properties are at least fairly well explored.

*** Existence ranges from very likely to certain, but further confirmation is desirable and/or quantum numbers, branching fractions, etc. are not well determined.

** Evidence of existence is only fair.

* Evidence of existence is poor.