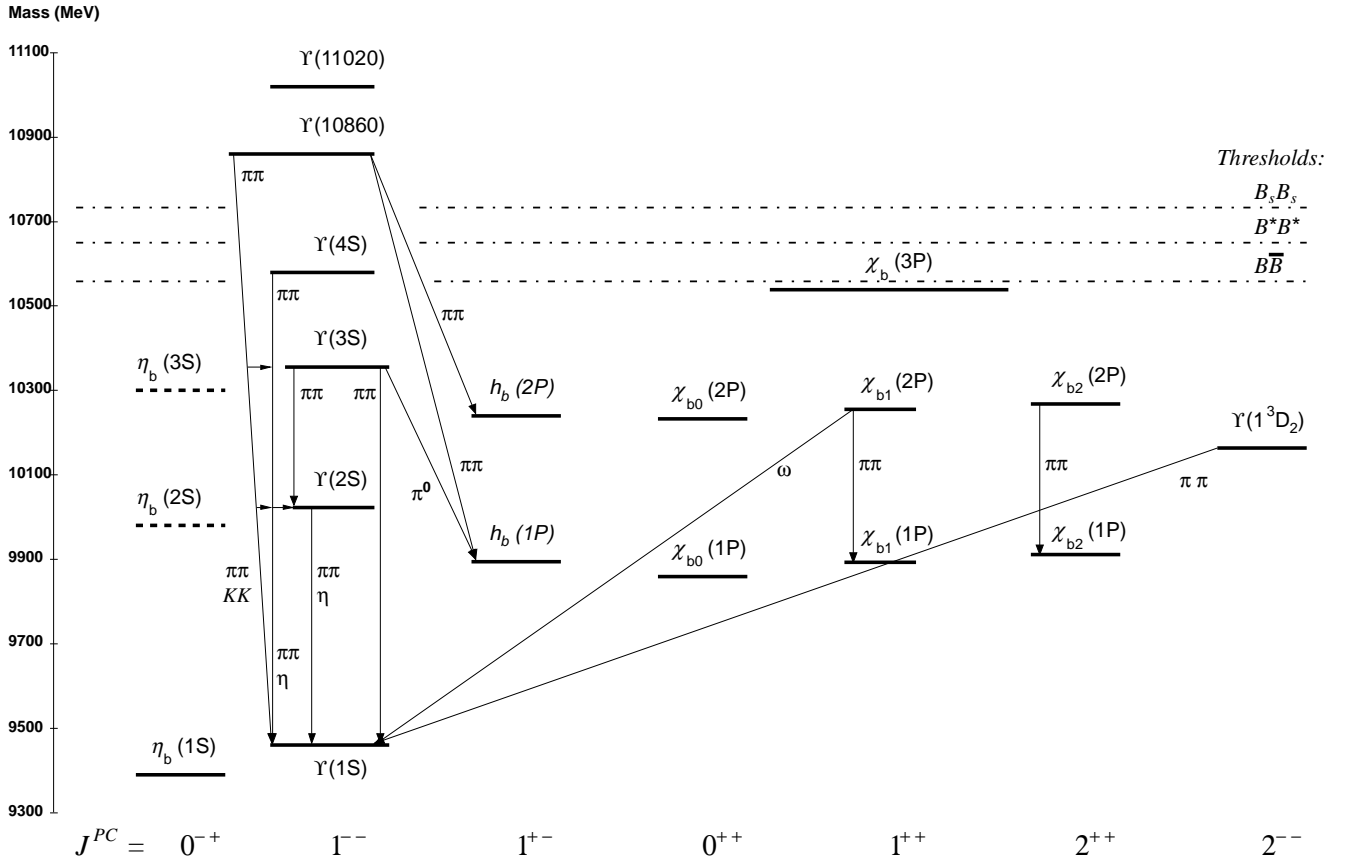


98. The Bottomonium System



The level scheme of the $b\bar{b}$ states showing experimentally established states with solid lines. Singlet states are called η_b and h_b , triplet states Υ and χ_{bJ} . In parentheses it is sufficient to give the radial quantum number and the orbital angular momentum to specify the states with all their quantum numbers. *E.g.*, $h_b(2P)$ means 2^1P_1 with $n = 2$, $L = 1$, $S = 0$, $J = 1$, $PC = +-.$ The figure shows observed hadronic transitions. The single photon transitions $\Upsilon(nS) \rightarrow \gamma\eta_b(mS)$, $\Upsilon(nS) \rightarrow \gamma\chi_{bJ}(mP)$, and $\chi_{bJ}(nP) \rightarrow \gamma\Upsilon(mS)$ are omitted for clarity.