Charmonium System

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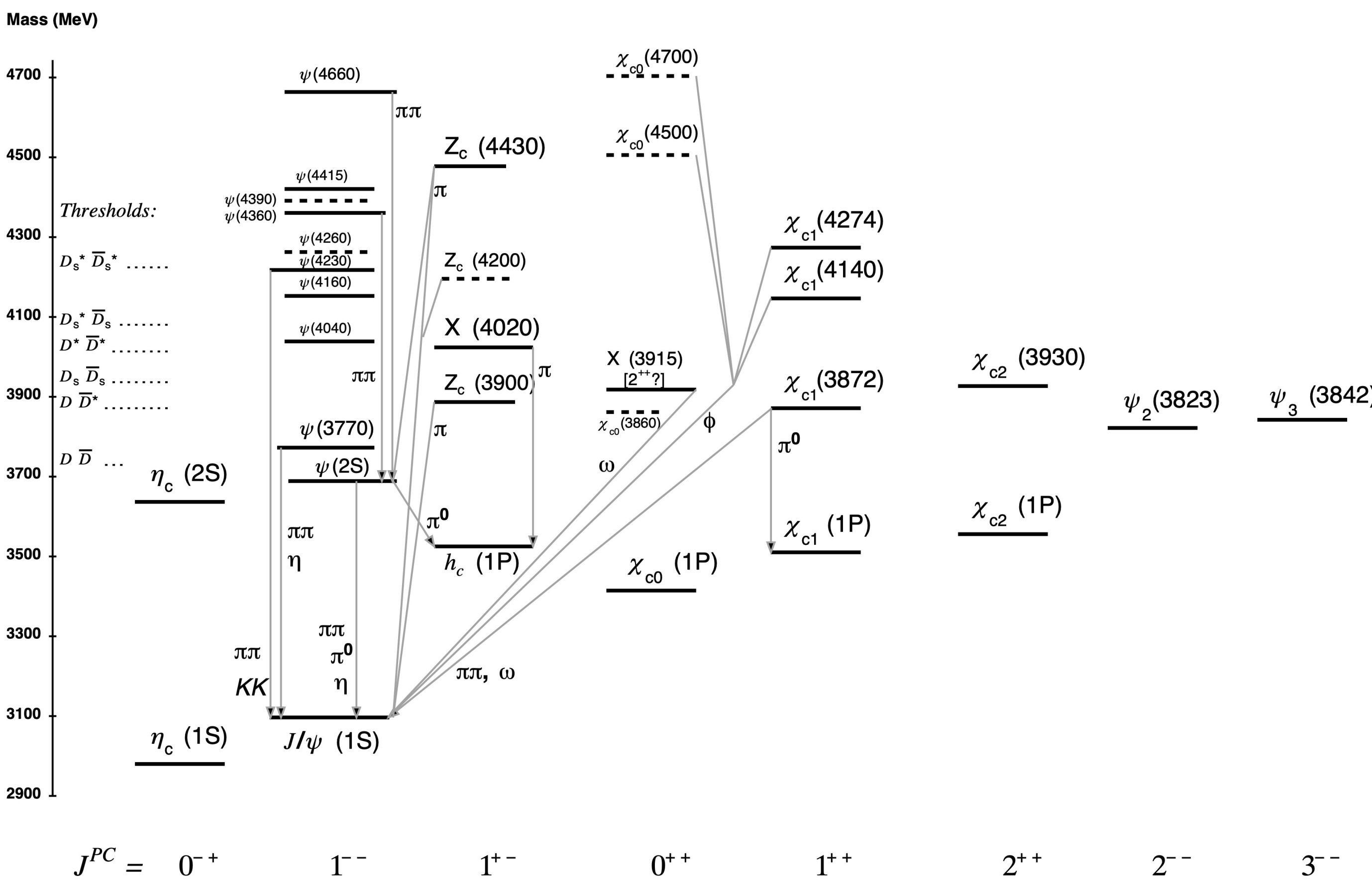

The level scheme of meson states containing a minimal quark content of $c\overline{c}$. The name of a state is determined by its quantum numbers $I^G J^{PC}$ (see the review "Naming Scheme for Hadrons"). States with unestablished quantum numbers are called X and are drawn according to our best estimate of their likely J^{PC}. States included in the Summary Tables are shown with solid lines; selected states not in the Summary Tables, but with assigned quantum numbers, are shown with dotted lines. The arrows indicate the most dominant hadronic transitions. Single photon transitions, including $\psi(nS) \rightarrow \gamma\eta_c(mS)$, $\psi(nS) \rightarrow \gamma\chi_{cJ}(1P)$, and $\chi_{cJ}(1P) \rightarrow \gamma J/\psi$, are omitted for clarity. For orientation, the location of the thresholds related to a pair of ground state open charm mesons is indicated in the figure.