Mass Spectrum of $1^{- +}$ Tetraquark States

The masses of light$(qq\overbar{q}\overbar{q})$, charmonium-like $(qc\overbar{q}\overbar{c})$, fully charmed $(cc\overbar{c}\overbar{c})$ tetraquark states are calculated in a constituent quark model (CQM) with Cornell-like potential and Breit-Fermi interaction. The spin-spin interaction, spin-orbit interaction are derived from the Breit-Fermi interaction. The four coupling parameters for the Cornell-like potential and spin-dependent interaction are proposed to be mass-dependent in accordance with lattice QCD data and our previous work. All model parameters were predetermined by studying the low-lying S- and P-wave light, charmed, and bottom meson mass spectra.