

flat band potential (at a semiconductor/solution interphase)

If effects of surface states are negligible, $\Delta\phi^{\text{sc}}$, the potential drop associated with the space charge in the semiconductor, vanishes as the charge on the semiconductor becomes zero. The potential of the semiconductor corresponding to this condition is the flat band potential, which plays the same role as the potential of zero charge for metals.

Source:

PAC, 1986, 58, 437 (*Interphases in systems of conducting phases (Recommendations 1985)*) on page 444