

surface states

Energy levels localized in the surface region of semiconductors, which do not bear any direct relation to the bulk energy distribution, but which can exchange electrons with the bulk. In such a case a *space charge* may arise even when σ (the free charge density) is zero, i.e. $\sigma = \sigma_{sc} + \sigma_{ss}$, where σ_{sc} is the space charge density and σ_{ss} is the charge density associated with the surface states.

1986, 58, 443