specific adsorption

Ions become specifically adsorbed when short-range interactions between them and the interphase become important. They are believed then to penetrate into the inner layer and may (but not necessarily) come into contact with the surface. They are usually assumed to form a partial or complete monolayer.

See: non-specific adsorption

Source:

PAC, 1986, 58, 437 (Interphases in systems of conducting phases (Recommendations 1985)) on page 448