extent of an interface (surface)

Also contains definitions of: geometric surface (interface) area, stepped surface

A quantity measured by its area, A (or S). For solids, a real (true, actual) and a geometric surface (interface) area, $A_{\rm r}$ and $A_{\rm g}$, respectively, may be defined if asperities are present whose height is orders of magnitude greater than the atomic or molecular size. The geometric surface is the projection of the real surface on a plane parallel to the macroscopic, visible phase boundary. If asperities are of the order of the atomic size, the surface of the solid may be described as stepped. (High index faces of crystals are stepped surfaces but may be ideally smooth in the sense of the roughness factor.)

Source:

PAC, 1986, 58, 437 (Interphases in systems of conducting phases (Recommendations 1985)) on page 439