electron density

If $P(x, y, z)\, dx\, dy\, dz$ is the probability of finding an electron in the volume element $dx\, dy\, dz$ at the point of a molecular entity with coordinates x, y, z, then $P(x, y, z)$ is the electron density at this point. For many purposes (e.g. X-ray scattering, forces on atoms) the system behaves exactly as if the electrons were spread out into a continuously distributed charge. The term has frequently been wrongly applied to negative charge population.

See also: charge density

Source:
PAC, 1994, *66*, 1077 *(Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994))* on page 1110