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.*

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