

The electric moment μ of an electrically neutral molecule is a vector quantity whose direction is that of a line joining the center of charge of the negative charges with the center of charge of the positive charges and whose magnitude is the length of that line multiplied by the total negative or the total positive charge, these being equal.

An atom or molecule is said to be polarized by an electric field when its electric moment is altered by the electric field through the displacement of charges. If the electric field strength is ϵ and the induced moment is μ then $\mu = \alpha\epsilon$ defines the polarizability α of the atom or molecule.