

## Dielectric properties: quantum chemical point of view

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Quantum chemical methods and model are proposed to estimate dielectric constant or relative permittivity evaluation at the atomic level. It was shown that at short distances (depends on materials, for silica it is below 30 Å) the force between point charge and fluorine anion changes its sign depending on the silica cluster position. General conclusion is to describe the forces, which applied to the atoms from the external electric field, it is necessary to use quantum chemistry methodology, but not the continuum models.

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