Conductor-like Screening Model

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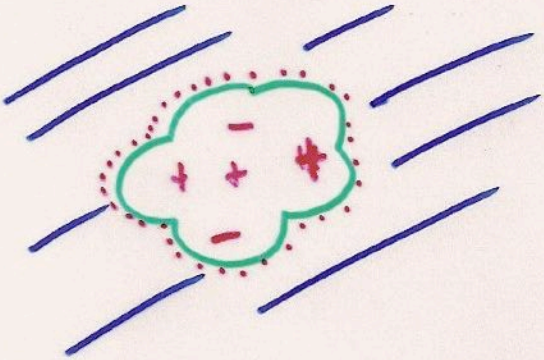

$$E = E_{gas} + \int z \frac{1}{r_z - r_s} q + \frac{1}{2} \int q \frac{1}{r_s - r_{s'}} q' \cdot \frac{\varepsilon}{\varepsilon - 1}$$

$$= E_{gas} + z B q + \frac{1}{2} q A q$$

$$\frac{\partial E}{\partial q} = 0 \Rightarrow A q = -Bz \quad \text{or} \quad \boxed{q = -A^{-1} B z}$$

molecule-solvent interaction: $-z B A^{-1} B z \equiv -z \phi^{RF}$

solvent-solvent interaction: $\frac{1}{2} z B A^{-1} A A^{-1} B z = \frac{1}{2} z B A^{-1} B z$