K-Point

18/1/06

- We know that the phase pickup will be:

$$e^{jk_y y}$$

And that has to be equal to:

$$e^{jk_y' \cdot y'}$$

$$y' = \alpha y$$ (α: some stretching factor.)

$$k_y' \cdot Y' = k_y [y_{hr} + y_{er}]$$

$$k_y' \cdot Y' = k_y \cdot Y$$

$$k_y' = \frac{k_y Y}{Y'}$$

$Y \Rightarrow$ length of cell in ~~orig.~~ real space.
$Y' \Rightarrow$ length of cell in stretched space.

Conductivity

- For meep: $\varepsilon_i = \frac{\varepsilon_r \sigma_D}{2\pi f_{cen}}$

This means that σ_D stays the same +

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Read and Understood By

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ε_i will scale to ~~ε_r~~ ε_i' naturally when scaling ε_r. Thus, we only set the conductivity once and the rest takes care of itself.

- Now, we just need to do a study of tip opening χ and incident χ. I am getting a feeling that incident χ is as important as opening χ.