Effective parameters should
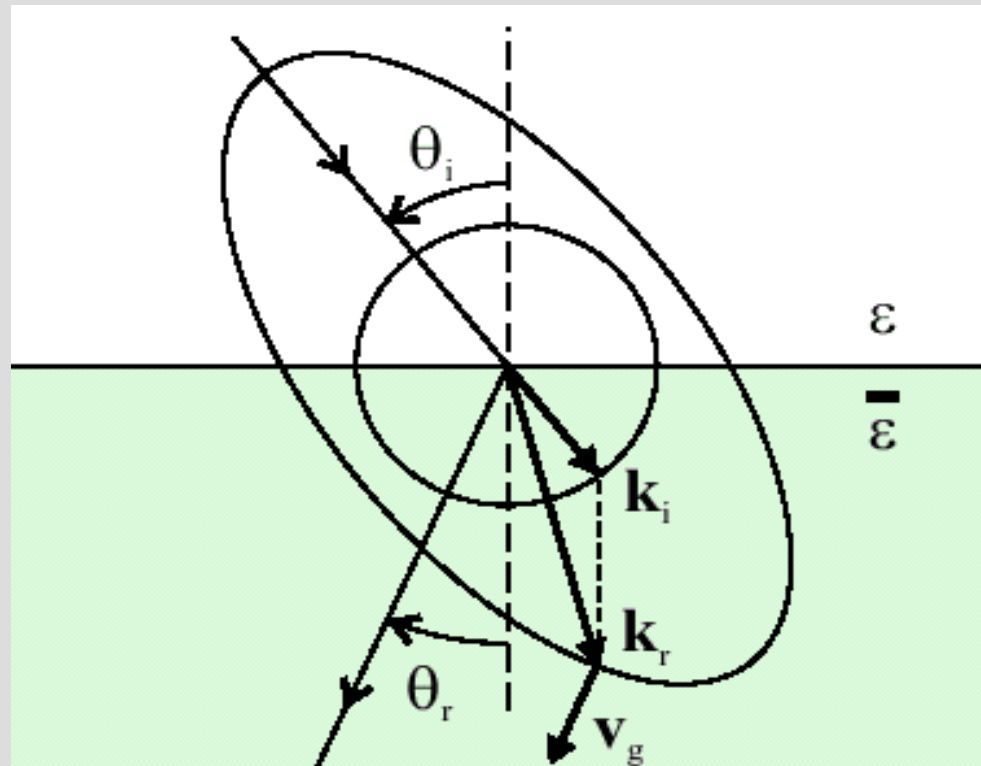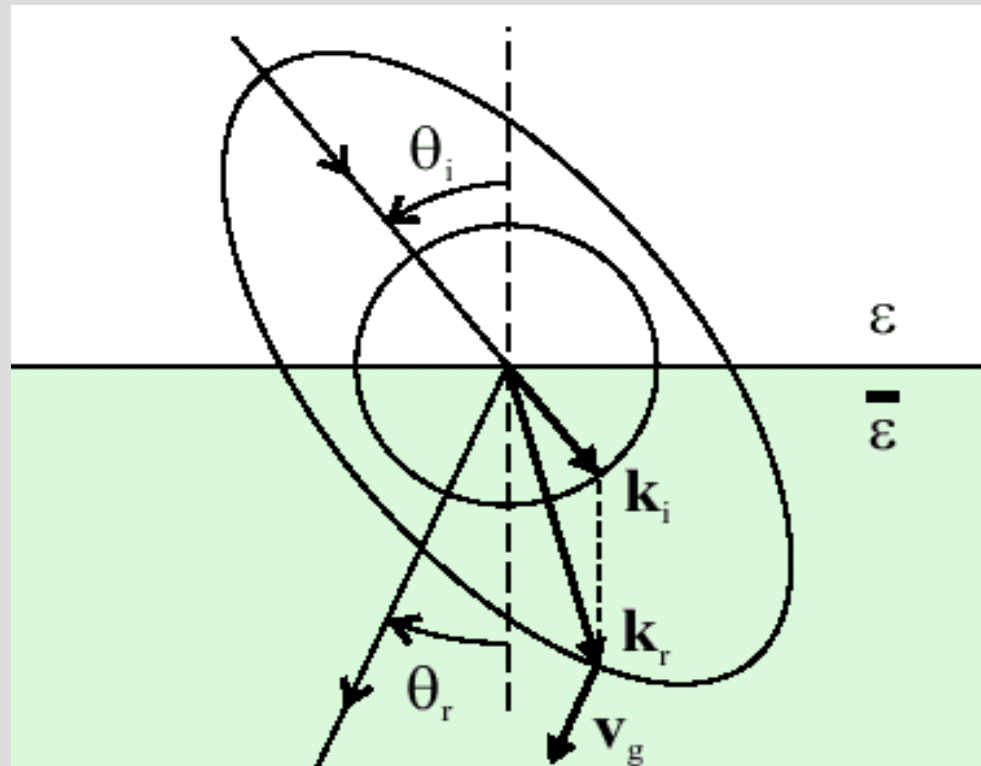
- Provide more information than the simple description of the results of an experiment.

- Provide a description of set of physical phenomena as simple as possible

- Provide a descrition of this set of experiments as complete as possible
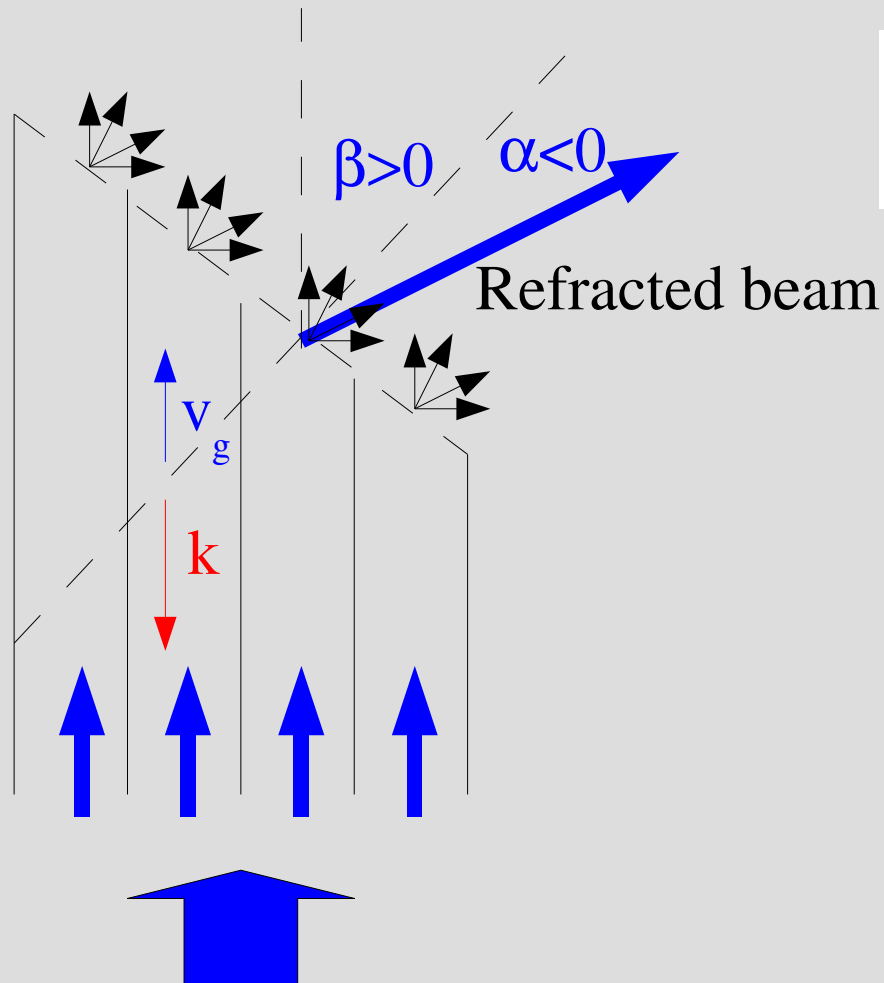
Example: NR ...l? in uniaxial crystals

$n < 0?$

Example: NR ...l? in uniaxial crystals

Or: $n_\perp$, $n_{/\!/} > 0$?

Example: NRI in a bunch of backward waveguides?
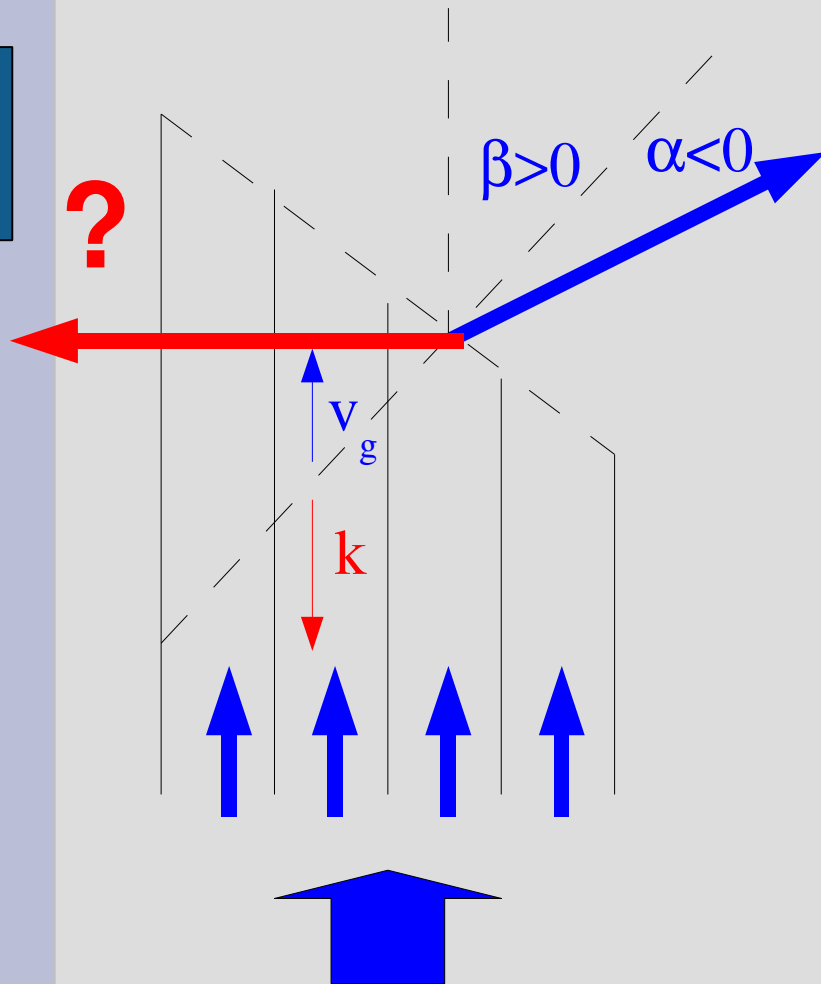
β>0   α<0

Refracted beam

$$ka\sin(\alpha) - k_0 a\sin(\beta) = 0, 2\pi, 4\pi\ldots$$

Only first maximum:

$$n = \frac{k}{k_0} = \frac{\sin\beta}{\sin\alpha}$$
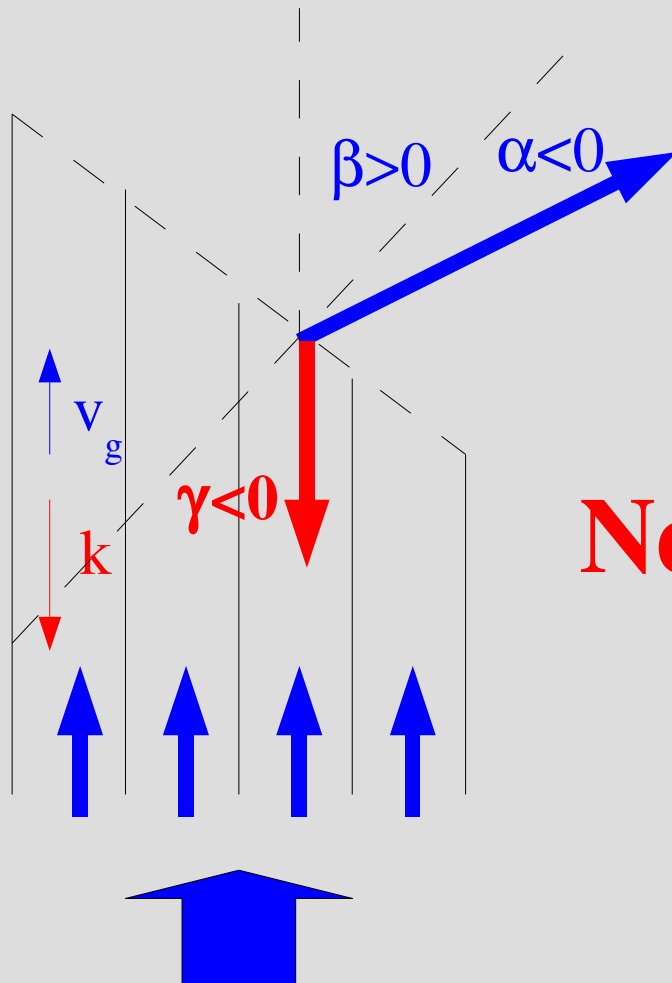
v$_g$

k

n < 0?

Incoming radiation

Example: NRI in a bunch of backward waveguides?

β>0 α<0

?

v_g

k

Were is reflected beam?

Incoming radiation
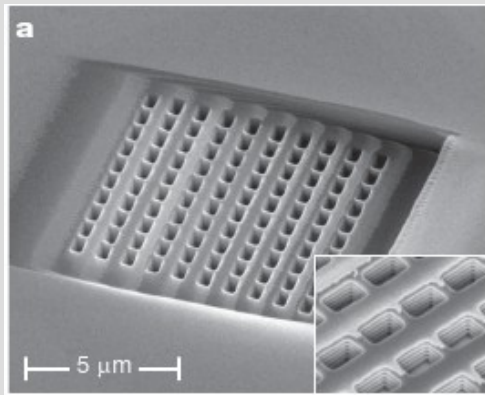
Example: NRI in a bunch of backward waveguides?

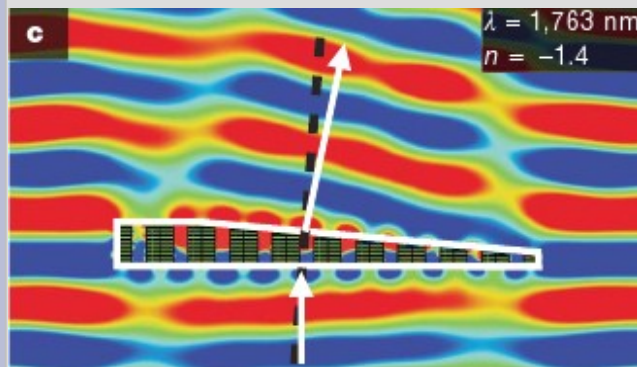

Negative reflection?

Negative "reflective" index?

n<0 does not provide a complete description
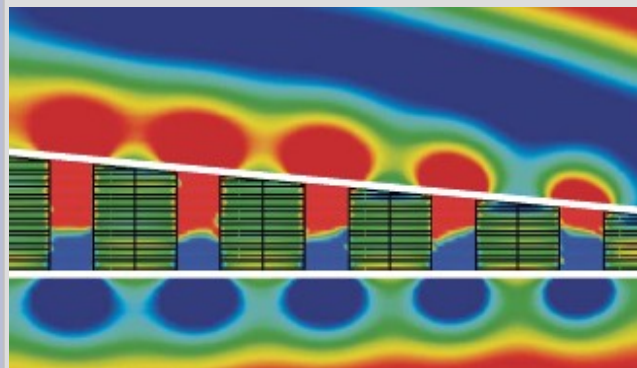
Example: NRI in a bunch of backward waveguides?

Negative reflection?

Negative "reflective" index?

n<0 does not provide a complete description

Thank you