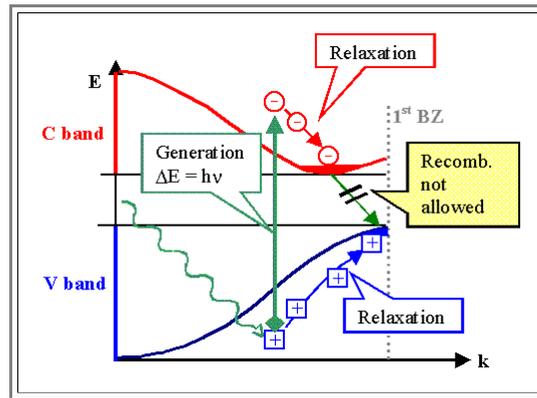


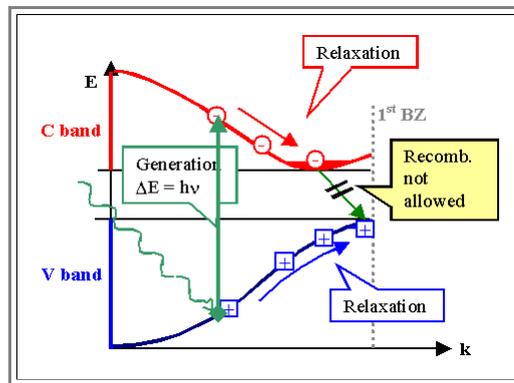
Mistake in Picture

What is wrong with this picture [as shown in the backbone](#)?

Illustration



Well, let's look at the correct version:



In k-space the only possible states for electrons and holes are right on the dispersion curve. An electron just somewhere as in the wrong picture, would have a combination of energy E and \mathbf{k} -vector (or, same thing, momentum) that simply does not exist.

Of course, by drawing it 100 % correctly, there would be so many things at the same point (e.g. tip/end of arrows, symbol for hole, dispersion curve) that the drawing becomes hard to "read".