

Quiz 8

Name:

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Question 1

In semiconductors, the transition from the valence band to the conduction band can typically be excited with:

- ☐ Gamma radiation
- ☒ Visible radiation
- ☐ Microwave radiation

Question 2

Draw a simple energy scheme showing the valence band, the conduction band and the energy level corresponding to an exciton.

Cf. slide 21 in course 5_1.

Question 3

Why are indirect bandgap semiconductors less efficient for light absorption/radiative recombination? (one sentence)

Indirect transitions are less efficient because they need to involve both a photon and a phonon for momentum conservation.