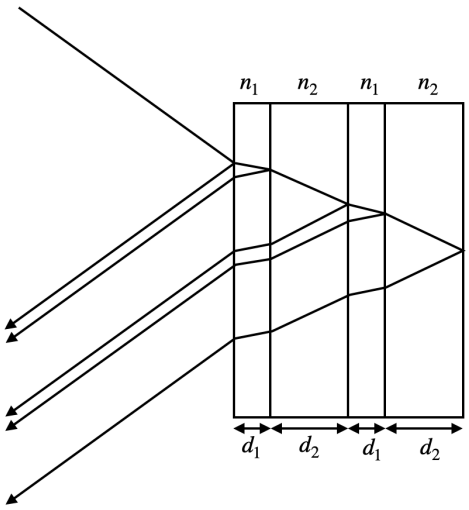

Fig.: Periodic optical multilayer structure of layers with different refractive index.

Using such structures high reflectivities can be achieved in certain wavelength ranges even though the materials used are transparent. The propagation through such a multilayer stack can be formalized into matrix operations, which can simplify the calculation. Note that also phase jumps at the boundaries upon reflection have to be taken into accout. The overall calculations go beyond our scope here.

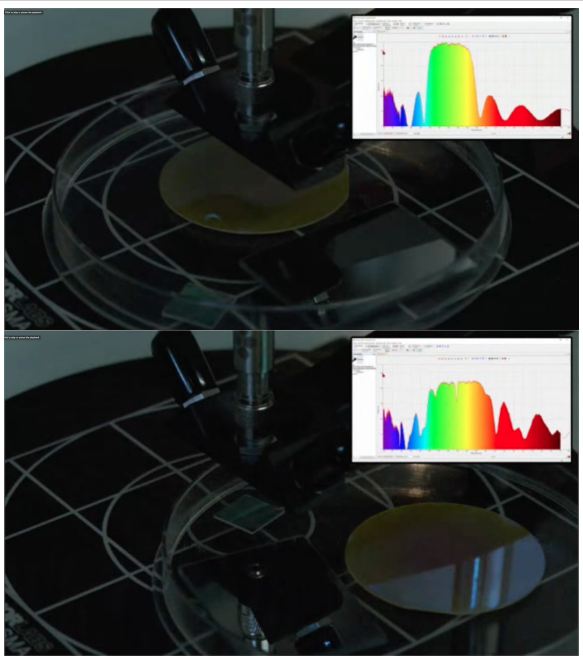

Fig.: (Left) Reflection spectrum of a Bragg mirror as demonstrated in the lecture. (Right) Reflection spectrum of two Bragg mirrors stacked on top of each other with an intermediate layer causing a "defect" in the reflection (little dip), which can