stack (see there: [0021]) is solved. At least the edge region and - due to good thermal conductivity of the wafer material - also the region adjacent to the edge region are, however, subjected to a considerable temperature increase. The problem here is also the resulting temperature gradient.

Therefore, the object of this invention is to devise a device and a method to detach a wafer from a carrier as nondestructively as possible.

This object is achieved with the features of a first aspect of the invention as defined in claim~~claims~~ 1 and a second aspect of the invention as defined in claim 6~~14~~. Advantageous further developments of the invention are given in the dependent claims. The framework of the invention also encompasses all combinations of at least two of the features given in the specification, the claims, and/or the figures. In the specified value ranges, values that lie within the indicated limits will also be disclosed as boundary values and they are to be claimed in any combination.

The invention is based on the idea of devising a device with which stripping is enabled at a temperature of less than 350°C. It has been found that the temperature ranges above 350°C can be harmful to the wafer. For higher temperatures, moreover, more energy is required so that the device according to the invention requires less energy to detach the wafer from the carrier.

According to the first aspect of the invention, there is provided a device for releasing an interconnect layer of a carrier-wafer combination consisting of a wafer and a carrier at a side edge of the interconnect layer with a rotation means for rotation of the carrier-wafer combination in a release position, characterized in that the device has a connection release means with a working chamber, in which at least a sector of the periphery of the side edge can be accommodated in the release position of the carrier-wafer combination, and in which solvent for dissolving the interconnect layer can be delivered.

According to the second aspect of the invention, there is provided a method for releasing an interconnect layer of a carrier-wafer combination consisting of a wafer and a carrier at a side edge of the interconnect layer with the following steps:

- accommodating at least a sector of the periphery of a side edge of the carrier-wafer combination in a working chamber in a release position,
- delivering of a solvent for at least partly dissolving the interconnect layer and
- rotating the carrier-wafer combination in the release position by means of a rotating device.

~~Accordingly, t~~The device according to one embodiment of the invention for stripping a wafer from a carrier that is connected to the wafer by an interconnect layer can be characterized by the following features:

- a receiving means for accommodating a carrier-wafer combination consisting of the carrier and the wafer,
- a connection release means for unfixing, in particular breaking the connection provided by the interconnect layer between the carrier and the wafer, and
- stripping means for stripping the wafer from the carrier, or for stripping the carrier from the wafer,

the connection release means being made to work in a temperature range from 0 to 350°C, especially from 10 to 200°C, preferably from 20 to 80°C, and more preferably at ambient temperature.

Furthermore, according to another embodiment of the invention, a method for stripping a wafer from a carrier that is connected to the wafer by an interconnect layer can have the following steps:

- accommodating a carrier-wafer combination consisting of the carrier and the wafer on a receiving means,
- unfixing, in particular breaking the connection provided by the interconnect layer between the carrier and the wafer by a connection release means, and
- stripping the wafer from the carrier, or for stripping the carrier from the wafer by stripping means.

the connection release means working in a temperature range of up to 350°C, especially from 10 to 200°C, preferably from 20 to 80°C, and more preferably at ambient temperature.

A wafer is defined as a product substrate, for example a semiconductor wafer, which conventionally is thinned to a thickness of between 0.5 μm and 250 μm, the trend being toward thinner and thinner product substrates.

The carrier is, for example, a carrier substrate with a thickness of between 50 μm and 5,000 μm.

The interconnect layer can be an adhesive, for example a soluble adhesive, especially a thermoplastic, which is applied, for example, selectively in an edge region of the carrier-wafer combination, especially in an edge zone from 0.1 to 20 mm. Alternatively, the adhesive can be applied over the entire surface, and the adhesive force can be reduced in the center by an adhesion-