Method for separating a layer system comprising a wafer

Abstract

The invention relates to a method for mechanically separating a laminar structure (8) from a carrier assembly (1a) comprising or consisting of a first carrier (1), wherein the laminar structure (8) comprises a wafer (7) and optionally a second, stretchable carrier (20), comprising the following steps:

a) providing a layer system (1a, 8) comprising the carrier assembly (1a) and the laminar structure (8)

b) creating a mechanical stress in the region of the interface between carrier assembly (1a) and the laminar structure (8), so that the laminar structure (8) is separated from the carrier assembly (1a), by a method comprising

i) the steps:

i a) providing a separating aid (29).

i b) fixing the separating aid (29) on the second carrier (20) so that during the separating operation the second carrier (20) remains fixed on the separating aid (29) directly behind a separating front (33) that arises during separation, and

i c) mechanically separating the laminar structure (8) from the carrier assembly (1a) utilizing a separating front (33),

and/or ii) the following step:

ii) producing a vibration in the layer system (1a, 8),

and/or iii) the following step:

iii) changing the temperature of the layer system (1a, 8) or of parts of the layer system (1a, 8)

with the proviso that when steps i a) – i c) are not included in the method, steps ii) and/or iii) lead to complete separation of the laminar structure from the carrier assembly.

Fig. 3