Embodiments of the present invention provide a device and a method as well as a substrate, which at least partially eliminate, in particular completely eliminate, the drawbacks mentioned in the prior art.

All combinations of at least two features given in the description, the claims and/or the drawings also fall within the scope of the invention. In stated value ranges, values lying inside the stated limits are also deemed to be disclosed as limiting values and can be claimed in any combination. Insofar as features disclosed in respect of the device can also be perceived as features of the method, the latter should also apply as being according to the method and vice versa.

In the following, structuring and embossing are understood to mean the production of micro- and/or nanostructures. In particular, no contact pressure should occur in embossing.

Embodiments of the invention describe a method and a device for producing micro- and/or nanometre-size structures. Amongst other things, embodiments of the invention are based on the idea of solving the aforementioned technical problems in production by the use of very thin, in particular flexible substrates and using the capillary forces. After contact is made between the embossing material and the structured stamp, the fixing of the substrate is at least partially cancelled, preferably by means of at least one controllable fixing element, as result of which the embossing process is preferably initiated.

Embodiments of the invention thus concern in particular to a method and a device for the conformal contacting of the structured stamp and the embossing material without the use of an external pressure or without contact pressure of the structured stamp and embossing material in the embossing process.

Accordingly, an aspect of the invention relates to a method for producing micro- and/or nanostructures, with at least the following steps in the following sequence:

a) fixing the substrate with the embossing material on a substrate accommodating device,

b) contacting of a structured stamp with an embossing material,

c) at least partially cancelling the fixing of the substrate,

d) curing of the embossing material,

f) removal of the embossing material from the structured stamp.

Disclosed herein is a device for producing micro- and/or nanostructures with the previously described method, wherein a substrate with an embossing material can be fixed on a substrate accommodating device, and wherein a structured stamp can be brought into contact with the embossing material, and wherein the fixing of the substrate can at least partially be cancelled, and wherein the embossing material can be cured, and wherein the embossing material can be removed from the structured stamp.

Disclosed herein is an article with micro- and/or nanostructures, wherein the micro- and/or nanostructures are produced with a method according to the invention and with a device according to the invention.

In a preferred embodiment of the invention, provision is made such that the substrate is flexible and can thus be adapted at least partially conformal with the structured stamp, in particular after the cancelling of the fixing or during the structuring of the embossing material. The substrate in particular has a small thickness and/or consists of a partially flexible material, so that during production it can advantageously partially assume the structure of the structured stamp. The substrate can also not or completely adapt to the structured stamp. After the curing of the embossing material, the substrate with the cured embossing material forms in particular a unit. The substrate can thus advantageously assist the embossing process and prevent embossing defects. Furthermore, the thin flexible substrate can be deformed during the production