CLAIMS

1. A pressure transfer disk (4, 4') for transfer of a bonding pressure from a pressurization apparatus (1) to a wafer (5) with the following:

- a first pressure side (4d) for making contact with the pressurization apparatus (1),
- a second pressure side (4o, 4o') facing away from the first pressure side (4d) with an effective contact area (4k) for making contact with the wafer (5) and pressurizing it, at least the effective contact area (4k) having a low adhesiveness relative to the wafer (5),

wherein the pressure transfer disk (4, 4') is made as a lattice network,

wherein the pressure transfer disk (4,4') is for transfer of the bonding pressure in thermocompression bonding, and

wherein the lattice network has a mesh width M less than 1 mm.

2. The pressure transfer disk as claimed in Claim 1, wherein the adhesiveness is defined by a surface energy of less than 0.1 J/m^2, especially less than 0.01 J/m^2, preferably less than 0.001 J/m^2, even more preferably less than 0.0001 J/m^2, ideally less than 0.00001 J/m^2.

3. The pressure transfer disk as claimed in one of the preceding claims, wherein the adhesiveness of the contact area (4k), by using water as the test liquid, is defined with a contact angle greater than 20°, especially greater than 50°, preferably greater than 90°, even more preferably greater than 150°.

4. The pressure transfer disk as claimed in one of the preceding claims, wherein the lattice network has a mesh width M ~~less than 2 mm, more preferably~~ less than 0.5 mm~~, even more preferably less than 0.1 mm, most preferably less than 0.01 mm~~.

5. The pressure transfer disk as claimed in one of claims 1 to 3, wherein the lattice network has a mesh width M less than 0.1 mm.

6. The pressure transfer disk as claimed in one of claims 1 to 3, wherein the lattice network has a mesh width M less than 0.01 mm.

~~5~~7. The pressure transfer disk as claimed in one of the preceding claims, wherein at least the contact area (4k) of the second pressure side (4o, 4o') has a surface roughness M' produced especially by shotpeening, sandblasting, grinding, etching and/or polishing between 100 nm and 100 μm, especially between 1 μm and 10 μm, even more preferably between 3 μm and 5 μm.

~~6~~8. The pressure transfer disk as claimed in one of the preceding claims, wherein the pressure transfer disk (4, 4') is formed from a material which is thermodynamically stable up to at least 400°C, especially up to at least 800°C, preferably up to at least 1200°C, even more preferably up to at least 2000°C, still more preferably up to at least 3000°C.

~~7~~9. The pressure transfer disk as claimed in one of the preceding claims, wherein the pressure transfer disk (4, 4') is formed from a material which especially over a large temperature range has a uniform and high compressive strength, especially at temperatures above 400°C, which strength is greater than 100 MPa, especially greater than 500 MPa, preferably greater than 1000 MPa, even more preferably greater than 2000 MPa.

~~8~~10. The pressure transfer disk as claimed in one of the preceding claims, wherein the pressure transfer disk (4, 4') has a thickness d less than 15 mm, preferably less than 10 mm, more preferably less than 5 mm, even more preferably less than 1 mm, most preferably less than 0.1 mm, most preferably of all less than 0.05 mm.

~~9~~11. The pressure transfer disk as claimed in one of the preceding claims, wherein at least the second pressure side (4o, 4o'), preferably the entire pressure transfer disk (4, 4'), is formed from a material which is inert relative to the wafer (5) under given conditions and/or does not react with the wafer material and/or is not soluble relative to the wafer material.

~~10~~12. An application of a pressure transfer disk (4, 4') as claimed in one of the preceding claims during bonding, in particular in thermocompression bonding.