Claims

1. At least one module (1) for a device (100) for the thermal treatment of workpieces, each module of the at least one module comprising:

- a thermally conductive base block (2) with a base block side (3),
- at least one electrical input (6),
- an LED luminous area (11), wherein the LED luminous area (11) is formed by at least one LED module (10), wherein the at least one LED module (10) is arranged on the base block side (3) and is electrically conductively connected to the electrical input (6),
- a module luminous area (18) with a module power density (BPD), wherein the module power density (BPD) corresponds to the sum of the power, emitted as light, of the LED modules arranged on the base block side (3) per total area of the base block side (3),
- a separating layer (12) between LED module (10) and base block side (3), wherein the separating layer (12) is thermally conductive,

characterized in that

the module (1) further comprises at least one electrical output (7) to which the at least one LED module (10) is electrically conductively connected, in that the separating layer (12) is electrically insulating, and in that the module power density (BPD) is greater than 20 W/cm2.

2. The at least one module (1) according to claim 1, wherein the base block side (3) is a base block top side (3) and the base block (2) further comprises a base block bottom side (4) and base block side surfaces (5), the module further comprising:

at least one coolant inlet (8) and at least one coolant outlet (9), wherein the LED luminous surface has a luminous surface power density (LPD).

3. The at least one module (1) according to claim 1, further comprising a cooling device configured to bring the base block into thermal contact with a coolant,

the cooling device further comprising at least one coolant inlet (8) and at least one coolant outlet (9),

wherein the cooling device is configured to receive a coolant via the coolant inlet (8) in the base block and to discharge the received coolant via the coolant outlet (9) from the base block.

4. The at least one module (1) according to claim 1, **characterized in that** a plurality of LED modules (10) form the LED luminous area (11) of the module (1) and the LED modules (10) are configured to emit different wavelength ranges,

wherein a first wavelength range is in the range 425 to 600 nm and a second wavelength range is in the range 200 to 425 nm.

5. The at least one module according to claim 1, **characterized in that** a plurality of LED modules (10) form the LED luminous area (11) and a plurality of electrical inputs (6) and outputs (7) are present, which are each electrically conductively connected to an LED module (10) or an LED module group (17).

6. The at least one module (1) according to claim 1, **characterized in that** the base block (2) has a lamellar structure with one or more channels (13) allowing flow of a coolant (14) via the coolant inlet (8) and coolant outlet (9).

7. The at least one module (1) according to claim 1, wherein the base block side (3) is a base block top side facing the workpiece to be treated and the base block further comprises a base block bottom side (2) and base block side surfaces (5).

8. The at least one module (1) according to claim 2, **characterized in that** the electrical input (6) and/or electrical output (7) and/or the coolant inlet (8) and/or the coolant outlet (9) are arranged on the base block bottom side (2).

9. The at least one module (1) according to claim 2, **characterized in that** the electrical input (6) and/or electrical output (7) and/or the coolant inlet (8) and/or the coolant outlet (9) are arranged on a base block side surface (2).

10. The at least one module (1) according to claim 1, **characterized in that** each LED module of at least a part of the at least one LED module (10) is covered by a first transparent component on the side of the LED module (10) facing away from the base block side (3).

11. The at least one module (1) according to claim 1, **characterized in that** the LED luminous area (11) is covered by a second transparent component (16) on the side of the LED module (10) facing away from the base block side (3),

characterized in that the first transparent component is arranged between the respective LED module (10) and the second transparent component.

12. The at least one module (1) according to claim 1, wherein the module power density (BPD) is greater than 35 W/cm2.

13. The module (1) according to claim 1, wherein the module power density (BPD) is not greater than 1000 W/cm2.

14. The at least one module (1) according to claim 1, wherein the LED luminous area (11) has a luminous surface power density (LPD) which results from the power, emitted as light, per LED luminous area.

15. The at least one module (100) according to claim 1, **characterized in that** the at least one module are multiple modules that are formed and/or expandable in a modular manner by the modules (1) arranged next to each other.

16. The at least one module (100) according to claim 15, **characterized in that** a respective electrical input (6) and/or coolant inlet (8) of a subsequent module (1) is connected to an electrical output (7) and/or coolant outlet (9) of a preceding module (1).

17. A suction device (200) for suctioning gases and/or particles which are emitted or produced on a surface of a treated workpiece (204) during a thermal treatment of the workpiece (204) , the suction device comprising:

- a turbomachine (201),
- one or more lines (202), and
- a suction nozzle (203),

wherein the lines (202) couple the turbomachine (201) to the suction nozzle (203) and the suction nozzle (203) is configured in such a way that, in conjunction with the one or more lines and the turbomachine (201), it is suitable for generating a laminar flow (205) outside the suction device (200) and in a surrounding area of the suction nozzle (203).

18. The suction device (200) according to claim 17, further comprising a blowing device which can be arranged with respect to the suction nozzle in such a way that it is suitable for generating a flow of a fluid towards the suction nozzle, such that the suction region of the suction nozzle is enlarged.

19. A system comprising:

- one or more modules (1),

each module of the one or more modules comprising:

- a thermally conductive base block (2) with a base block side (3),
- at least one electrical input (6),
- an LED luminous area (11), wherein the LED luminous area (11) is

formed by at least one LED module (10), wherein the at least one LED module (10) is arranged on the base block side (3) and is electrically conductively connected to the electrical input (6),

- a module luminous area (18) with a module power density (BPD), wherein the module power density (BPD) corresponds to the sum of the power, emitted as light, of the LED modules arranged on the base block side (3) per total area of the base block side (3),
- a separating layer (12) between LED module (10) and base block side (3), wherein the separating layer (12) is thermally conductive, the module (1) further comprises at least one electrical output (7) to which the at least one LED module (10) is electrically conductively connected, in that the separating layer (12) is electrically insulating, and in that the module power density (BPD) is greater than 20 W/cm2; and
- one or more suction devices (200),

each suction device of the one or more suction devices (200) comprising:

- a turbomachine (201),
- one or more lines (202), and
- a suction nozzle (203),

wherein the lines (202) couple the turbomachine (201) to the suction nozzle (203) and the suction nozzle (203) is configured in such a way that, in conjunction with the one or more lines and the turbomachine (201), it is suitable for generating a laminar flow (205) outside the suction device (200) and in a surrounding area of the suction nozzle (203),

wherein the one or more modules (1) and the one or more suction devices (200) can be arranged relative to a workpiece (204) in such a way that the laminar flow (205) generated by the one or more suction devices (200) arises between the workpiece (204) and the LED luminous areas of the one or more modules (1) and is directed obliquely with respect to a plane perpendicular to at least one of the one or more LED luminous areas of the one or more modules (1).

20. The system according to claim 19, wherein an intersection point of the generated laminar flow with the plane perpendicular to at least one of the one or more LED luminous areas of the one or more modules (1) lies in the light field of the one or more LED luminous areas of the one or more modules (1).