CLAIMS:

1. A gas circulation loop for a laser discharge tube comprising a gas supply duct and a gas exhaust duct, wherein the gas supply duct and/or the gas exhaust duct is elongated in the longitudinal direction of the laser discharge tube and connected to the laser discharge tube by an inlet flow distributor, respectively an outlet flow distributor, adapted for controlled transversal gas inlet, respectively outlet, over at least part of the laser discharge tube, and wherein the inlet flow distributor and/or the outlet flow distributor comprise a plurality of respective inlet channels or outlet channels,
   characterized in that the ratio between the diameter of the gas supply duct and the diameter of the inlet channels, and/or the ratio between the diameter of the gas exhaust duct and the diameter of the outlet channels is at least 2.

2. A gas circulation loop according to claim 1, wherein the gas supply duct is positioned in parallel with the longitudinal direction of the laser discharge tube.

3. A gas circulation loop according to claim 1 or 2, wherein the gas exhaust duct is positioned in parallel with the longitudinal direction of the laser discharge tube.

4. A gas circulation loop according to claims 1 to 3, wherein the inlet flow distributor and/or the gas outlet distributor comprise a porous or capillary material.

5. A gas circulation loop according to claims 1 to 4, wherein the inlet flow distributor comprises a grid assembly extending in the longitudinal direction of the laser discharge tube.

6. A gas circulation loop according to claim 5, wherein the grid assembly comprises a number of grids of different transparency positioned consecutively in transverse direction.

7. A gas circulation loop according to any of the above claims, wherein a blower connects the gas supply duct and the gas exhaust duct in a plane defined by

the longitudinal direction of the laser discharge tube and the longitudinal direction of the gas supply duct.

8. A laser apparatus comprising a gas circulation loop according to any of the above claims.

CLAIMS

1. A gas circulation loop for a laser discharge tube comprising a gas supply duct and a gas exhaust duct, wherein the gas supply duct and/or the gas exhaust duct is elongated in the longitudinal direction of the laser discharge tube and connected to the laser discharge tube by an inlet flow distributor, respectively an outlet flow distributor, adapted for controlled transversal gas inlet, respectively outlet, over at least part of the laser discharge tube, and wherein the inlet flow distributor and/or the outlet flow distributor comprise a plurality of respective inlet channels or outlet channels,

characterized in that the ratio between the diameter of the gas supply duct and the diameter of the inlet channels, and/or the ratio between the diameter of the gas exhaust duct and the diameter of the outlet channels is at least 2.

2. The gas circulation loop according to claim 1, wherein the gas supply duct is positioned in parallel with the longitudinal direction of the laser discharge tube.

3. The gas circulation loop according to claim 1 or 2, wherein the gas exhaust duct is positioned in parallel with the longitudinal direction of the laser discharge tube.

4. The gas circulation loop according to claims 1 to 3, wherein the inlet flow distributor and/or the gas outlet distributor comprise a porous or capillary material.

5. The gas circulation loop according to claims 1 to 4, wherein the inlet flow distributor comprises a grid assembly extending in the longitudinal direction of the laser discharge tube.

6. The gas circulation loop according to claim 5, wherein the grid assembly comprises a number of grids of different transparency positioned consecutively in transverse direction.

7. The gas circulation loop according to any of the above claims, wherein a blower connects the gas supply duct and the gas exhaust duct in a plane defined by the longitudinal direction of the laser discharge tube and the longitudinal direction of the gas supply duct.

8. A laser apparatus comprising a gas circulation loop according to any of the above claims.