

Title (en)

GAS LASER AND OPERATING METHOD THEREFOR

Title (de)

GASLASER UND BETRIEBSVERFAHREN DAFÜR

Title (fr)

LASER À GAZ ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN LASER À GAZ

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Application

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Abstract (en)

[origin: WO2011157581A1] The invention relates to a gas laser, comprising: a plurality of discharge tubes (3), which are connected to one another via corner housings (4), in which in each case at least one mirror element (7) for guiding a laser beam (6) and at least one cooling channel (20) with a coolant (21) located therein are provided, and a heat exchanger (19) with at least one cooling channel (16) with a coolant (17) located therein for cooling the laser gas prior to entry into a respective corner housing (4). The invention provides an additional cooling device for cooling the laser gas and/or a temperature control device (18, 22) for producing a temperature difference ($T_{w,w} - T_{w,B}$) between the coolant (17) in the at least one cooling channel (16) of the heat exchanger (19) and the coolant (21) in the at least one cooling channel (20) of the corner housing (4, 5), in such a way that it is possible to set a difference ($T_{G,K} - T_{w,B}$) between the temperature ($T_{G,K}$) of the cooled laser gas on entry into the corner housing (4) and the temperature ($T_{w,B}$) of the coolant (21) in the corner housing (4) of less than 5 K, preferably of less than 2 K, in particular of less than 0.2 K. The invention also relates to an associated operating method for a gas laser.

IPC 8 full level

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- JP S63299183 A 19881206 - HITACHI LTD
- JP H02103974 A 19900417 - FANUC LTD

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