Title (en)

CYLINDRICAL LASER WITH HIGH FREQUENCY DISCHARGE EXCITATION

Title (de)

ZYLINDERFÖRMIGER LASER MIT HOCHFREQUENZ-ENTLADUNGSERREGUNG

Title (fr)

LASER CYLINDRIQUE À EXCITATION DE DÉCHARGE À HAUTE FRÉQUENCE

Publication

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Application

EP 10824179 A 20101015

Priority

- RU 2009138084 A 20091015
- US 2010052879 W 20101015

Abstract (en)

[origin: WO2011047286A2] Disclosed is a subsonic transfer gas flow laser utilizing high frequency discharge excitation (HFDE) applied in a narrow gap of gas dynamic channel formed between two parallel non-concentric cylindrical vessels. The laser body consists of an external cylindrical metal vessel and an internal cylindrical dielectric vessel positioned interior to the external vessel. The vessels are sealed and form an aerodynamic channel for a closed loop circulation of a laser gas medium which circulates through the channel via a turbo blower. An electrode-less cavity design is utilized by placing a single electrode on the external surface of cylindrical dielectric vessel and the dielectrically insulated external metal vessel is electrically grounded. The optical resonator is placed within or partially downstream or entirely downstream of the plasma chamber. The gas dynamic channel within the optical resonator cavity may have the angle of opening along the gas flow direction.

IPC 8 full level

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CPC (source: EP)

H01S 3/032 (2013.01); **H01S 3/036** (2013.01); **H01S 3/038** (2013.01); **H01S 3/041** (2013.01)

Citation (search report)

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