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(71) Applicant(s):

LIGHTWAVE ELECTRONICS CORPORATION [US/US]; 2400 Charleston Road Mountain View, California 94043 (US) (*for all designated states except US*)

ARBORE, Mark [US/US]; 171 Pepper Court Los Altos, California 94022 (US) (*for US only*)

BLACK, John [GB/US]; 2276 Allegheny Way San Mateo, California 94402 (US) (*for US only*)

GROSSMAN, William [US/US]; 1315 Garthwick Drive Los Altos, California 94024 (US) (*for US only*)

(72) Inventor(s):

ARBORE, Mark; 171 Pepper Court Los Altos, California 94022 (US)

BLACK, John; 2276 Allegheny Way San Mateo, California 94402 (US)

GROSSMAN, William; 1315 Garthwick Drive Los Altos, California 94024 (US)

(74) Agent(s):

ISENBERG, Joshua; 204 Castro Lane Fremont, California 94539 (US)

(54) Title (EN): LASER RESISTANT TO INTERNAL IR-INDUCED DAMAGE

(54) Title (FR): LASER RESISTANT AUX DOMMAGES INDUITS PAR LE RAYONNEMENT INFRAROUGE INTERNE

(57) Abstract:

(EN): Co-doping the gain medium (102) of a diode-pumped laser (100) to make the laser resistant to long-term degradation from high-intensity internal infrared radiation is disclosed. Co-doping the gain medium (102) with ions such as Cr³⁺ that make the gain medium (102) resistant to external ionizing radiation solves problems of long-term degradation of the gain medium (102).

(FR): Le milieu actif d'un laser infrarouge à diode de pompage est co-dopé de manière à rendre le laser résistant à la dégradation à long terme provoquée par le rayonnement infrarouge interne à haute intensité. Le co-dopage du milieu actif avec des ions tels que Cr³⁺ et Ce³⁺ qui rendent ledit milieu actif résistant au rayonnement ionisant externe résout le problème de la dégradation à long terme du milieu actif.

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Declarations:

Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America