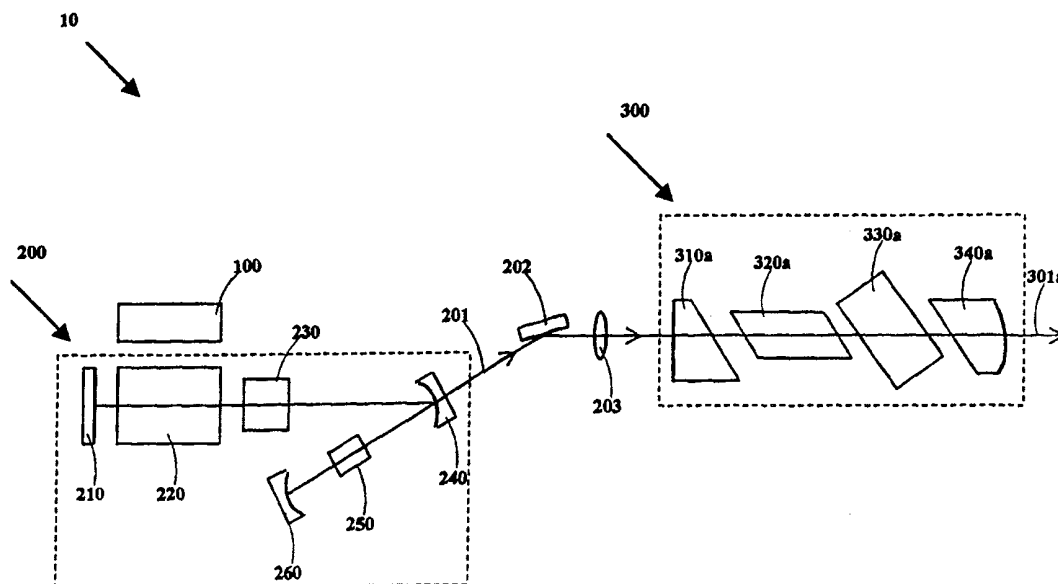




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(54) Title: A DIODE-PUMPED CASCADE LASER FOR DEEP UV GENERATION



(57) Abstract

A two-step, diode-pumped solid-state laser is disclosed. A diode laser source (100) pumps a first solid-state laser (200). The first solid-state laser (200) in-turn pumps a second solid-state laser (300). The second solid-state laser (300) contains all the parameters suitable for efficient deep UV generation. A direct application of the diode-pumped solid-state cascade laser (10) is for deep UV generation for photo-refractive surgeries.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/19764

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : IPC(6) H01S 3/30

US CL : 372/5,10,12,22,26,70,93,97

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 372/5,10,12,22,26,70,93,97

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

None

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,345,457 A (Zenzie et al) 06 September 1994 (06.09.94), See entire document.	1-15
A, P	US 5,940,418 A (Shields) 17 August 1999 (17.08.99), See entire document.	2, 4, 5
X	US 5,548,608 A (Zhang) 20 August 1996 (20.08.96), See entire document.	6-9
X	US 4380,076 A (Bethume) 12 April 1983 (12.04.83), See entire document.	6-9

Further documents are listed in the continuation of Box C.

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* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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