

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 January 2003 (23.01.2003)

PCT

(10) International Publication Number
WO 03/007438 A1

(51) International Patent Classification⁷: **H01S 3/127**, (74) Agent: **K.T. LIM & COMPANY**; 101 Cecil Street
3/16, 3/11 #25-05, Tong Eng Building, Singapore 069533 (SG).

(21) International Application Number: PCT/SG01/00147 (81) Designated States (*national*): JP, SG, US.

(22) International Filing Date: 12 July 2001 (12.07.2001) (84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(25) Filing Language: English

(26) Publication Language: English

Published:
— with international search report

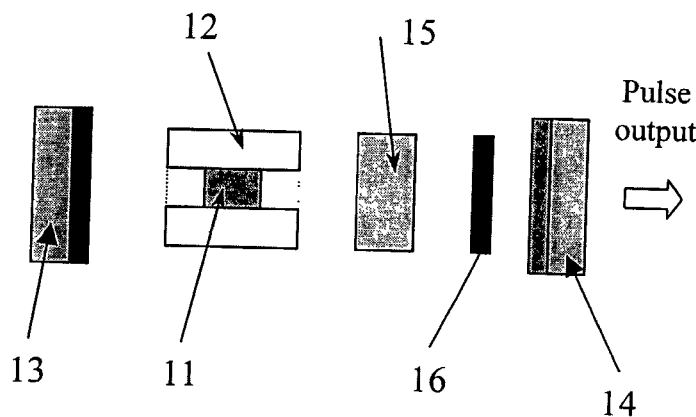
(71) Applicant (*for all designated States except US*): **SINGAPORE INSTITUTE OF MANUFACTURING TECHNOLOGY** [SG/SG]; 71 Nanyang Drive, Singapore 638075 (SG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): **XIONG, Zheng, Jun** [SG/SG]; c/o 71 Nanyang Drive, Singapore 638075 (SG).

(54) Title: Q-SWITCHED LASER



(57) Abstract: A Q-switched laser includes a pump cavity (12), a laser medium (11) in said pump cavity (12) for generating laser light, an active Q-switching element (15) for controlling Q-switching oscillation of laser light in said laser according to a selected modulation rate, and a passive Q-switching element (16) for Q-switching oscillation of laser light in said laser according to selected saturation characteristics of said passive Q-switching element (16). In a further embodiment, the passive Q-switching element (17) acts as both the passive Q-switching element and as an output coupler of the Q-switched laser.

WO 03/007438 A1