

Title (en)  
PASSIVELY MODE-LOCKED SEMICONDUCTOR LASER

Title (de)  
PASSIV-MODENGEKOPPELTER HALBLEITERLASER

Title (fr)  
LASER SEMI-CONDUCTEUR A MODES BLOQUES PASSIVEMENT

Publication  
**EP 1166406 A1 20020102 (EN)**

Application  
**EP 00919427 A 20000317**

Priority  
• US 0006928 W 20000317  
• US 12492999 P 19990318

Abstract (en)  
[origin: WO0055950A1] A miniature ultra-short light pulse source is based on a passively mode-locked semiconductor laser, including a multisegment laser diode (LD) with controllable saturation in absorbing sections(s) and anti-reflection coating on one of its facets, which is used as an active element. A single-mode optical fiber with a Bragg grating (FBG) written into its core is used as an external cavity. Depending on FBG reflectivity spectrum, the device emits a regular train of transform-limited ps-length pulses or linearly chirped ps-length pulses suitable for a time-compression technique.

IPC 1-7  
**H01S 5/065**; **H01S 5/14**

IPC 8 full level  
**H01S 5/065** (2006.01); **H01S 5/14** (2006.01); **H01S 5/00** (2006.01); **H01S 5/06** (2006.01)

CPC (source: EP)  
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