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Title: Optical frequency comb device has computer controller that reads current signal, controls delay line, and scans measured current signal to obtain comb-shaped frequency spectrum

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Abstract: NOVELTY - The device has titanium gem locking femto-second (fs) laser, periodically polarized crystal, and receiving-detecting system. Periodically polarized crystal is provided with specific amount magnesium oxide lithium niobate crystal. Polyethylene lens is provided between periodically polarized crystal and detector. Photoconductive antenna detector detects output polyethylene lens. Computer controller reads current signal, controls delay line, and scans measured current signal to obtain comb-shaped frequency spectrum.

USE - Optical frequency comb device.

ADVANTAGE - Since the computer controller reads current signal, controls delay line and scans measured current signal to obtain comb-shaped frequency spectrum, complex optic frequency pump can be avoided, and wider terahertz comb-shaped frequency spectrum can be produced effectively.

DESCRIPTION DRAWING(S) - The drawing shows a schematic block diagram the optical frequency comb device. (Drawing includes non-English language text)

Derwent Class Code(s): A89 (Photographic, laboratory equipment, optical); L03 (Electro-(in)organic, chemical features electrical devices); P81 (Optics); S01 (Electrical Instruments including e.g. instrument panels); T01 (Digital Computers); V07 (Fibre-optics and Light Control); V08 (Lasers and Masers)

Derwent Manual Code(s): A04-G02E; A12-E13; A12-L02A; L03-F02; L03-G01; L03-G05; L03-H03A; L03-X; S01-D01; T01-J08A; V07-F02A; V07-K10B1; V08-A03C

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