

Title (en)

SYSTEM AND METHOD FOR GENERATING A LIGHT PULSE WITH SUB-PICOSECOND DURATION THAT IS DURATION AND/OR REPETITION FREQUENCY ADJUSTABLE

Title (de)

SYSTEM UND VERFAHREN ZUR ERZEUGUNG EINES LICHTIMPULSES MIT SUBPIKOSEKUNDENDAUER, DIE EINE DAUER UND/ODER EINE WIEDERHOLUNGSFREQUENZ EINSTELLBAR IST

Title (fr)

SYSTÈME ET PROCÉDÉ DE GÉNÉRATION D'IMPULSION LUMINEUSE DE DURÉE SUB-PICOSECONDE, AJUSTABLE EN DURÉE ET/OU EN FRÉQUENCE DE RÉPÉTITION

Publication

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Application

**EP 22709630 A 20220211**

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Abstract (en)

[origin: WO2022171815A1] The invention relates to a light pulse generating system that comprises a source (1), an electro-optical modulator (2) suitable for receiving source laser radiation (10), forming at least one source light pulse (20) with a duration that is less than or equal to 100 picoseconds and adjusting the duration and/or the repetition frequency of the source light pulse (20); an optical amplifier (41) operating in an anomalous dispersion regime in order to form an amplified light pulse (40), a passive optical fibre (61) arranged to receive the amplified light pulse (40) and to generate a spectrally broadened amplified light pulse (60), the amplified light pulse (40) having a peak power above a predetermined threshold in order to broaden the amplified light pulse spectrally by self-phase modulation in the passive optical fibre and to generate a non-linear Raman signal, the non-linear Raman signal being suitable for stabilising the energy of the spectrally broadened amplified light pulse (60).

IPC 8 full level

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