

Title (en)
PULSE MODIFICATION APPARATUS COMPRISING A PASSIVE CONVERSION DEVICE FOR COMPENSATING FOR ENVIRONMENTAL INFLUENCES

Title (de)
PULSMODIFIKATIONSVORRICHTUNG MIT EINER PASSIVEN UMSETZUNGSEINRICHTUNG ZUR KOMPENSATION VON UMGEBUNGSEINFLÜSSEN

Title (fr)
APPAREIL DE MODIFICATION D'IMPULSIONS COMPRENANT UN DISPOSITIF DE CONVERSION PASSIF POUR COMPENSER LES INFLUENCES ENVIRONNEMENTALES

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Abstract (en)
[origin: WO2023285028A1] The invention relates to a pulse modification apparatus (1) in the form of a pulse stretching apparatus for the dispersive stretching of laser pulses (2) or a pulse compression apparatus for the dispersive compression of laser pulses (2), comprising at least one dispersive optical element (3, 3') for angle separation and the combination of spectral components (7) of the laser pulses (2), and a tuning device (4') for tuning the dispersion of the pulse modification apparatus (1) by influencing the spectral components (7). The pulse modification apparatus (1) further comprises at least one passive sensor element (5) having an output variable (A) that depends on at least one environmental parameter (U), and a passive conversion device (6) for converting a change (dA) in the output variable provided by the at least one passive sensor element (5) into a change (dS) in the tuning variable for the tuning device (4') in order to compensate for a change in the dispersion of the pulse modification apparatus (1) and/or at least one additional pulse stretching apparatus (25) and/or at least one additional pulse compression apparatus (26), said change in dispersion resulting from a change in the at least one environmental parameter (U).

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