

Title (en)

METHOD AND DEVICE FOR CHARACTERISING AN IONISED MEDIUM USING AN ELECTROMAGNETIC RADIATION SOURCE HAVING AN ULTRASHORT DURATION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR CHARAKTERISIERUNG EINES IONISIERTEN MEDIUMS UNTER VERWENDUNG EINER QUELLE VON ULTRAKURZZEITIGEN ELEKTROMAGNETISCHEN STRAHLUNGEN

Title (fr)

PROCEDE ET DISPOSITIF DE CARACTERISATION D'UN MILIEU IONISE METTANT EN OEUVRE UNE SOURCE DE RAYONNEMENT ELECTROMAGNETIQUE A DUREE ULTRACOURTE

Publication

EP 0868835 B1 20010725 (FR)

Application

EP 96943163 A 19961220

Priority

- FR 9602047 W 19961220
- FR 9515390 A 19951222

Abstract (en)

[origin: WO9724020A1] A method and a device for characterising an ionised medium using an electromagnetic radiation source having an ultrashort duration, wherein two synchronised main (10) and secondary (12) laser beams are used; an X-ray beam (15) is generated; the X-ray beam (15) is modulated and time-distributed to give a first X-pulse train (20) with a uniform time distribution; the ionised medium (21) is exposed to said pulses; the X-ray radiation re-emitted by the medium is detected (30); the signal generated in a transmission line (34) is discriminated by time sampling resulting from the illumination of a series of photoconductive elements (33) distributed along said line (34) by means of a second pulse train from the secondary beam (12) which has the same time distribution as the first; and the generated signals (36) are measured and recorded.

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- OPT. LETTERS, vol. 20, 1995, pages 1907-1909

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