

Title (en)

A METHOD AND APPARATUS FOR CONCENTRAING ELECTROMAGNETIC ENERGY

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KONZENTRATION ELEKTROMAGNETISCHER ENERGIE

Title (fr)

PROCÉDÉ ET APPAREIL PERMETTANT DE CONCENTRER L'ÉNERGIE ÉLECTROMAGNÉTIQUE

Publication

**EP 3128284 A1 20170208 (EN)**

Application

**EP 15275182 A 20150804**

Priority

EP 15275182 A 20150804

Abstract (en)

An electromagnetic energy concentrator apparatus for capturing electromagnetic energy and focussing said energy toward a specified target (202), the apparatus comprising an electromagnetic radiation source (206) and a control system configured to cause electromagnetic radiation from said source to be applied to a selected plurality of three-dimensional portions of an atmospheric volume in a propagation path of said electromagnetic energy so as to heat and/or ionise the air within said portions, wherein said selected portions are spatially located together in a three-dimensional configuration so as to simulate an electromagnetic radiation path modifying element (204) for capturing said electromagnetic energy energy and directing and/or converging said captured energy toward a focal point at or adjacent to said specified target (202). A method of creating an atmospheric electromagnetic radiation path modifying element operative to simulate an electromagnetic energy concentrator is also described.

IPC 8 full level

**F41H 13/00** (2006.01)

CPC (source: EP)

**F41H 13/0062** (2013.01)

Citation (search report)

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- [X] US 4999637 A 19910312 - BASS RONALD M [US]
- [X] WO 2011057342 A1 20110519 - KOH HONG SEOW [AU]
- [A] BRIAN W. NEISWANDER ET AL: "Plasma Lens for Optical Path Difference Control", AIAA JOURNAL, vol. 50, no. 1, 1 January 2012 (2012-01-01), pages 123 - 130, XP055212822, ISSN: 0001-1452, DOI: 10.2514/1.J051175

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