

Title (en)
METHOD OF PLASMA INCISION OF MATTER WITH A SPECIFICALLY TUNED RADIOFREQUENCY ELECTROMAGNETIC FIELD GENERATOR

Title (de)
VERFAHREN ZUM PLASMASCHNEIDEN VON MATERIE MITTELS SPEZIELL ABGESTIMMTEN ELEKTROMAGNETISCHEN
FELDGENERATOREN

Title (fr)
TECHNIQUE D'INCISION AU PLASMA D'UN MATERIAU A L'AIDE D'UN GENERATEUR DE CHAMP ELECTROMAGNETIQUE A FREQUENCES
RADIOELECTRIQUES ACCORDEES DE MANIERE SPECIFIQUE

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Application
EP 98948457 A 19980924

Priority
• US 9819843 W 19980924
• US 95778697 A 19971024
• US 11247198 A 19980709

Abstract (en)
[origin: WO9921496A1] The present invention is a device to place an incision into matter (32) with a harmonious plasma cloud. A radio frequency generator system (10) produces electromagnetic waveform which is transmitted by an active transmitter incising electrode tip (28). This electromagnetic wave is utilized to initiate a plasma cloud with processes such as thermal ionization, and a photoelectric effect which then triggers an avalanche effect for charged atomic particles at the surface of the active transmitter incising electrode tip (28). This electromagnetic wave is impedance matched, frequency matched, power matched, tuned to the plasma cloud in order to sustain, control a harmonious plasma cloud which demonstrates reduced atomic particle turbulence, and chaos while forming a coating over the surface of the active transmitter incising electrode tip (28). The magnetic bottle effect, the pinch effect, and the tunnelling effect are employed to trap, contain, compress, contour, focus, and amplify the energy of the incising plasma cloud.

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A61B 18/042 (2013.01 - EP KR); **A61B 18/1206** (2013.01 - KR); **A61B 18/1206** (2013.01 - EP); **A61B 2018/0066** (2013.01 - EP KR)

Citation (search report)
• [XY] US 3987795 A 19761026 - MORRISON CHARLES F
• [Y] US 5108391 A 19920428 - FLACHENECKER GERHARD [DE], et al
• [A] US 4534347 A 19850813 - TAYLOR LEONARD S [US]
• [A] US 3903891 A 19750909 - BRAYSHAW FORREST G
• See references of WO 9921495A1

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WO 9921496 A1 19990506; AP 1248 A 20040221; AP 1357 A 20041203; AP 2000001810 A0 20000630; AP 2001002064 A0 20010331; AU 736239 B2 20010726; AU 9502698 A 19990517; BR 9813268 A 20000822; CA 2307213 A1 19990506; CN 1176636 C 20041124; CN 1277546 A 20001220; EA 002935 B1 20021031; EA 200000458 A1 20010423; EP 1028662 A1 20000823; EP 1028662 A4 20061108; IL 135791 A0 20010520; JP 2001520939 A 20011106; KR 100543054 B1 20060120; KR 20010024563 A 20010326; NO 20002073 D0 20000419; NO 20002073 L 20000619; NO 20010130 D0 20010108; NZ 504364 A 20021126; NZ 509421 A 20030530; OA 11614 A 20040910; WO 9921495 A1 19990506

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