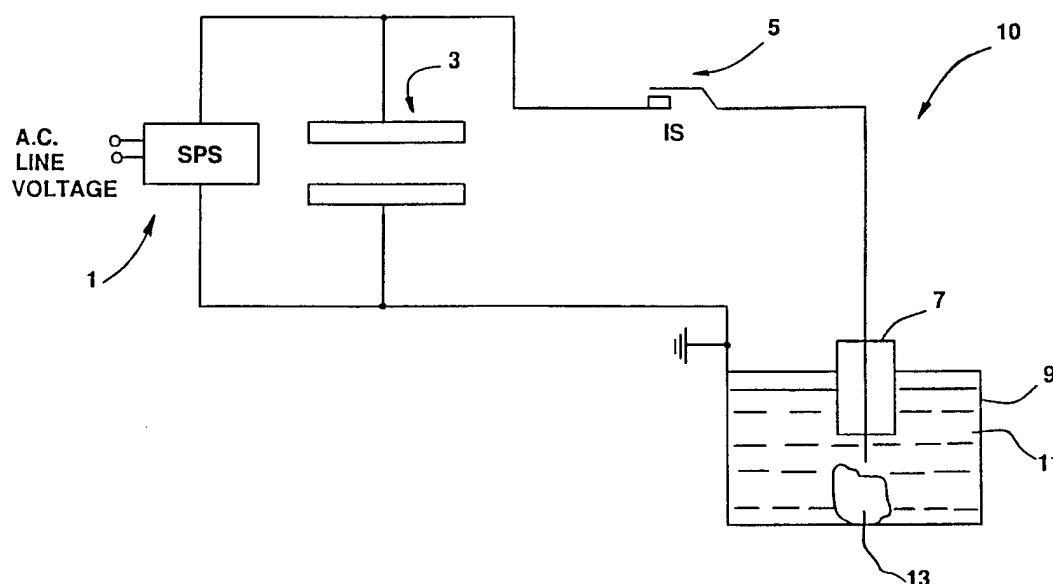




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>(51) International Patent Classification <sup>6</sup> :</b><br><b>B01J 19/08, A61N 1/32, A01C 1/00, D21C 9/10, 9/16,</b><br><b>C22B 4/00, A62D 3/00, A01C 1/02, A01M 19/00, B02C</b><br><b>19/18, B09B 3/00</b>                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>A3</b> | <b>(11) International Publication Number:</b> <b>WO 98/19788</b><br><br><b>(43) International Publication Date:</b> 14 May 1998 (14.05.98)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>(21) International Application Number:</b> PCT/IB97/01623<br><br><b>(22) International Filing Date:</b> 5 November 1997 (05.11.97)<br><br><b>(30) Priority Data:</b><br>08/743,806                      5 November 1996 (05.11.96)                      US<br><br><b>(71) Applicant:</b> E/P TECHNOLOGIES INC. [CA/CA]; 175 Liberty Street, Windsor, Ontario N9E 1H7 (CA).<br><br><b>(72) Inventors:</b> BABINGTON, Peter, D.; 175 Liberty Street, Windsor, Ontario N9E 1H7 (CA). GREEN, Daniel, T.; 2261 East Rauch Road, Erie, MI 48133 (US). LAFORET, Maurice; 3811 Concession Road 3, R.R. #2, Harrow, Ontario N0R 1G0 (CA). |           | <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.</i><br><br><b>(88) Date of publication of the international search report:</b><br>6 August 1998 (06.08.98) |

**(54) Title:** METHOD AND APPARATUS FOR DISSOCIATING MATERIALS



**(57) Abstract**

An apparatus (10) and method of use for dissociating materials include a power supply (SPS), high energy capacitor (3), high energy trigger device (5) and a probe (7, 25, 25', 42) and reactor (9, 20, 23, 23', 23'', 40) arrangement for treating both solid and medium/media materials (13). A near instantaneous discharge of the electrical charge stored in the capacitor (3) via the probe (7, 25, 25', 42) can be used to dissociate the material, either medium/media or solid, for a desired result. Hazardous materials can be treated to be rendered non-hazardous, rocks or other solid material can be treated for reduction in size, plant seeds can be treated to enhance plant growth surfaces of granular material can be scored or thermally polished and milk, juices and blood could be treated for sterilization.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 97/01623

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B01J19/08 A61N1/32 A01C1/00 D21C9/10 D21C9/16  
C22B4/00 A62D3/00 A01C1/02 A01M19/00 B02C19/18  
B09B3/00

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B01J A61N A01C D21C C22B A62D A01M B02C B09B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages                                    | Relevant to claim No.       |
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|          | -/--                                                                                                                  |                             |



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Date of the actual completion of the international search

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International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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International Application No

PCT/IB 97/01623

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