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54 **Ion source.**

57 An ion source in which a gaseous material, the source of the ions, is excited to a plasma state by means of a radio frequency electromagnetic field. The wall (2) of the chamber (1) containing the plasma is maintained at a high temperature and there is provided (5, 7, 9, 10, 21) a solenoidal or radial multipolar electric field thereby to cause the ion source to produce atomic rather than molecular ions.

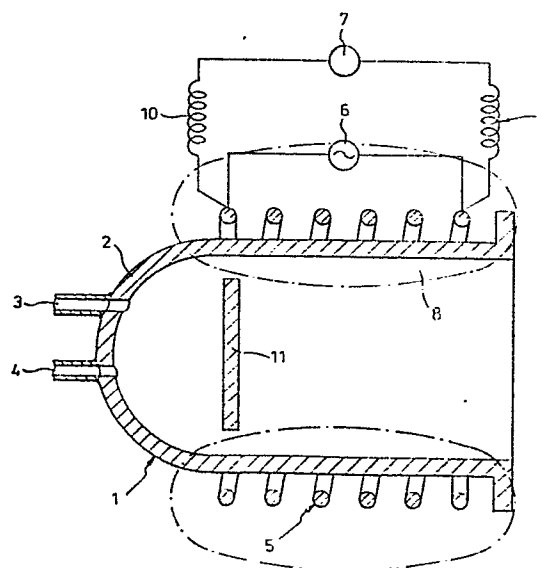


Fig. 1.



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EUROPEAN SEARCH REPORT

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EP 85 30 5339

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| E | --- US-A-4 598 231 (K. MATSUDA et al.) * Column 3, lines 12-19; column 6, line 23 * | 1,3 | |
| Y | --- US-A-4 447 773 (G. ASTON) * Figure 3 * | 2 | |
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| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 09-03-1987 | Examiner GALANTI M. |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |



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| A | --- REVUE DE PHYSIQUE APPLIQUEE, vol. 15, no. 5, May 1980, pages 995-1005, Paris, FR; R. GELLER et al.: "Micromafios source d'ions multichargés basée sur la résonance cyclotronique des électrons" * Figures 7,10 * | 1,4,5 | |
| A | --- US-A-4 017 403 (J.H. FREEMAN) * Figure 1 * | 5 | TECHNICAL FIELDS SEARCHED (Int. Cl. 4) |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 09-03-1987 | Examiner GALANTI M. |
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