

ABSTRACT

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A VAPORISER FOR GENERATING FEED GAS
FOR AN ARC CHAMBER

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A vaporiser generating feed gas for the arc chamber of an ion source has a crucible which is heated to a temperature at which material in the crucible sublimates to produce a vapour for use as the feed gas. In addition to the heating element for heating the crucible, there is a cooling element in the form of a cooling duct extending along the length of the crucible for receiving the cooling fluid. Forced cooling of the crucible when the heating element is switched off enables the crucible to be cooled more quickly so that the supply of a feed gas can be terminated sooner. This is important if an ion source is being switched from one feed gas to another. Also, the crucible may be forced cooled simultaneously while energising the heating element to enable the crucible to be accurately controlled at a lower operating temperature if desired.

This Sheet Has Been Replaced

