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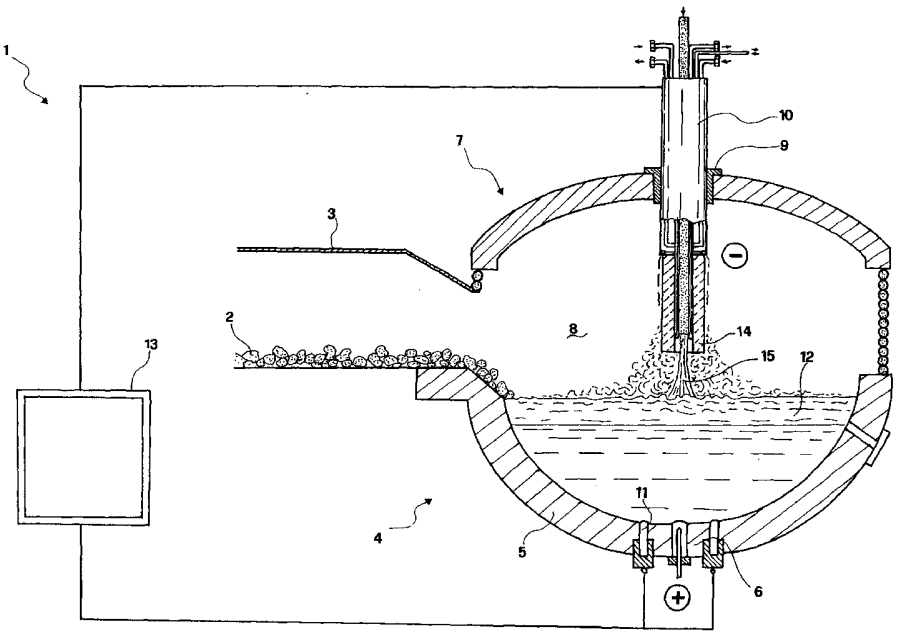
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(54) Title: ELECTRODE, IN PARTICULAR FOR SIDERURGICAL ELECTRIC ARC FURNACES AND THE LIKE, AND RELATED OPERATION METHOD



(57) Abstract: Electrode and related operation method, in particular for siderurgical electric arc furnaces and the like, comprising means for ejecting a fluid towards the metal bath thereof, wherein the fluid comprises at heat decomposable Carbon-rich combustible component, in particular a gaseous hydrocarbon selected from the group comprising methane, ethane, propane, butane and mixtures thereof, so as to produce a cloud which shields the electrode tip and coats with a solid layer the graphite surface of the electrode.

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05B7/085

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H05B C21C

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)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 730 961 A (BRYCE L) 1 May 1973 (1973-05-01) the whole document	1-30
X	US 4 827 486 A (FRITZ ERNST ET AL) 2 May 1989 (1989-05-02) abstract; figures 1-4	1,18
A	US 4 632 700 A (NEUSCHUETZ DIETER ET AL) 30 December 1986 (1986-12-30) abstract; figures 1-5	1,18
A	GB 1 532 075 A (KARINSKY V) 15 November 1978 (1978-11-15) page 6, left-hand column, line 50-63; figures 1-16	1

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[X] Further documents are listed in the continuation of box C.

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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Garcia, J

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PCT/IT 02/00679

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 3 783 167 A (KAZIMIERZ TYLKO J) 1 January 1974 (1974-01-01) abstract; figures 1-4	1,18

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