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84 Designated Contracting States: **AT BE CH DE FR GB IT LI LU NL SE**

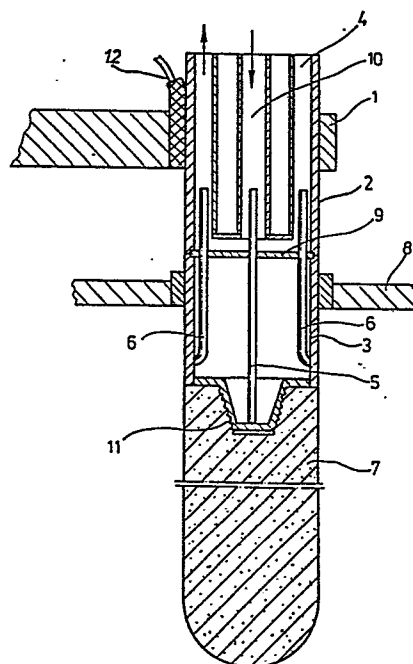
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54 **Electrode for high temperature processes and its use.**

57 Electrode for high-temperature processes, comprising an active section and a cooling section attached to it and extending into the furnace interior, said cooling section (3) comprising at least one heat pipe (5) with a polytropic heat exchanger in the furnace interior which has an additional cooling system (e.g. 6 in Fig. 1) for the dissipation of heat. The additional cooling system may comprise further heat pipes, a gas and/or a fluid circulation system, with the cooling fluid being pumped, and/or a heat insulation.

The electrode is intended for use in high-temperature processes, particularly in the production of steel. It is characterized by a safe and flexible manoeuvrability.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. <sup>3</sup> )
A	US-A-3 375 314 (SINNER)  * Column 2, lines 10-40; figure 1 *	1,2,6 22,23 25	H 05 B 7/101 H 05 B 7/12
A	US-A-3 605 436 (GAMMILL)  * Column 10, lines 7-40; figure 3 *	2-6,8 11,12 14,25 26	
A	GB-A-2 000 947 (KORF STAHL)		
A	US-A-3 750 745 (MOORE)		TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>3</sup> )
A	GB-A-2 027 871 (DAIMLER BENZ)		H 05 B 7/00 C 25 C 3/00 F 27 D 11/00 F 28 D 15/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11-12-1984	Examiner RAUSCH R.G.
<b>CATEGORY OF CITED DOCUMENTS</b> 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 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			

