

Title (en)  
Refractory nozzle

Title (de)  
Feuerfester Ausguss

Title (fr)  
Buse réfractaire

Publication  
**EP 1275453 A3 20031126 (DE)**

Application  
**EP 02009195 A 20020425**

Priority  
DE 10132575 A 20010710

Abstract (en)  
[origin: US2003011112A1] A refractory nozzle is provided for arrangement in the wall of metallurgic vessels, especially for steel melts. The nozzle has a passage opening with an upper end and a bottom end, an inside wall of a solid electrolyte material enclosing the passage opening. At least one electrode is arranged on an outer side of the solid electrolyte material facing away from the passage opening and having connecting lines leading electro-conductively therefrom. Thermal insulating material at least partially encloses the outer side of the solid electrolyte material and the electrode. The at least one electrode is essentially made of a metal which has a melting point of at least about 1400° C. and/or of at least one of its oxides.

IPC 1-7  
**B22D 41/60**; **B22D 41/54**

IPC 8 full level  
**B22D 41/52** (2006.01); **B22D 41/54** (2006.01); **B22D 41/60** (2006.01); **C21C 5/46** (2006.01); **C21C 7/00** (2006.01); **F27D 3/14** (2006.01)

CPC (source: EP KR US)  
**B22D 41/54** (2013.01 - KR); **B22D 41/60** (2013.01 - EP US)

Citation (search report)

- [A] PATENT ABSTRACTS OF JAPAN vol. 006, no. 161 (M - 151) 24 August 1982 (1982-08-24)
- [A] PATENT ABSTRACTS OF JAPAN vol. 006, no. 161 (M - 151) 24 August 1982 (1982-08-24)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 272 (M - 724) 28 July 1988 (1988-07-28)
- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 089 (M - 207) 13 April 1983 (1983-04-13)
- [A] PATENT ABSTRACTS OF JAPAN vol. 006, no. 161 (M - 151) 24 August 1982 (1982-08-24)

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