

Title (en)  
PROCESS AND APPARATUS FOR MEASURING THE SLAG LEVEL IN A METALLURGICAL VESSEL AND FOR ASSESSING ITS PHYSICAL CONDITION

Publication  
**EP 0022739 B1 19820317 (FR)**

Application  
**EP 80630021 A 19800702**

Priority  
LU 81512 A 19790716

Abstract (en)  
[origin: ES8103179A1] A method of and an apparatus for determining the level of slag above a metallurgical melt, especially a steel melt, and for determining a physical characteristic or property of the slag, such as its viscosity or consistency, utilizes a plurality of nozzles opening into the bath-containing vessel at different levels above the melt and supplied with inert gas. The difference in hydrostatic pressures at the nozzles can be ascertained by measurement of the pressures upstream thereof and the measured values are converted into indications of slag level and consistency.

IPC 1-7  
**C21C 5/30**

IPC 8 full level  
**C21C 5/30** (2006.01); **C21C 5/46** (2006.01); **F27D 21/00** (2006.01); **G01F 23/14** (2006.01); **G01N 7/00** (2006.01)

CPC (source: EP US)  
**C21C 5/30** (2013.01 - EP US); **C21C 5/4673** (2013.01 - EP US)

Citation (examination)

- US 3620085 A 19711116 - KHOI DANNY JAMES
- US 1457406 A 19230605 - STANCLIFFE CECIL W
- DE 2452655 A1 19750612 - CERMAT
- AT 260962 B 19680410 - WAAGNER BIRO AG
- DE 2834737 A1 19790308 - BRITISH STEEL CORP
- DE 2239216 A1 19730503 - ALLEGHENY LUDLUM IND INC
- DE 1274146 B 19680801 - FOERDERUNG DER EISENHUETTENTEC
- DE 1508250 B1 19700409 - SIEMENS AG
- LU 81207 A1 19801216 - ARBED
- FR 1481242 A 19670519 - GAZ DE FRANCE
- JP S5252108 A 19770426 - NIPPON STEEL CORP

Cited by  
DE19962632C2; EP0359828A4

Designated contracting state (EPC)  
AT BE DE FR GB IT NL SE

DOCDB simple family (publication)  
**EP 0022739 A1 19810121**; **EP 0022739 B1 19820317**; AT E756 T1 19820415; AU 6041580 A 19810122; BR 8004359 A 19810127; CA 1159923 A 19840103; DE 3060230 D1 19820415; ES 493399 A0 19810216; ES 8103179 A1 19810216; JP S5616614 A 19810217; LU 81512 A1 19810203; PT 71535 A 19800801; US 4359211 A 19821116; ZA 804241 B 19810729

DOCDB simple family (application)  
**EP 80630021 A 19800702**; AT 80630021 T 19800702; AU 6041580 A 19800715; BR 8004359 A 19800714; CA 356149 A 19800714; DE 3060230 T 19800702; ES 493399 A 19800715; JP 9742880 A 19800716; LU 81512 A 19790716; PT 7153580 A 19800711; US 16948180 A 19800715; ZA 804241 A 19800714