

Title (en)
PYROMETALLURGICAL TREATMENT OF SLAGS

Title (de)
PYROMETALLURGISCHE VERARBEITUNG VON SCHLACKEN

Title (fr)
TRAITEMENT PYROMÉTALLURGIQUE DE LAITIER

Publication
EP 2839044 A1 20150225 (EN)

Application
EP 13720545 A 20130410

Priority
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Abstract (en)
[origin: WO2013156832A1] There is described a method for treating slag produced by metallurgical processes, in particular the waelz process, aimed to recover non-ferrous metals such as lead and zinc contained in such slag in the form of oxides. The method provides for bringing the slag to melting in a static tank furnace (2.7) heated by combustion, keeping the molten slag in a sufficiently reducing environment so as to reduce such oxides to metal. The metals evaporate from the molten mass, are oxidized again in an oxidizing atmosphere above the mass itself, removed and collected. As regards the molten mass thus purified, it is cooled and prepared for a commercial reuse thereof. The addition of scorifiers is provided, apt to decrease the melting point of the mass to be treated, if excessive for a combustion furnace. An advantage of the invention is to obtain the purification of slag containing metals such as lead and zinc up to make it a reusable product, thus obtaining reasonably low energy consumptions. A further advantage of some variants is the use, as scorifier, of exhaust foundry sands or scrap from other processes that would otherwise be unusable.

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CPC (source: EP)
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Citation (search report)
See references of WO 2013156832A1

Citation (examination)
• CN 101839645 A 20100922 - BAIYIN NON FERROUS METALS GROUP CO LTD, et al
• DE 102009034041 A1 20110127 - LINDE AG [DE]

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