

Title (en)

METHOD FOR REPROCESSING STEEL SLAGS AND FERRIFEROUS MATERIALS

Title (de)

VERFAHREN ZUM AUFARBEITEN VON STAHLSCHLACKEN UND EISENTRÄGERN

Title (fr)

PROCEDE POUR RETRAITER DES LAITIERS D'ACIER ET DES MATERIAUX FERRIFERES

Publication

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Application

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Abstract (en)

[origin: WO0015855A1] The invention relates to a method for reprocessing steel slags and ferriferous materials, e.g. electric furnace slags, converter slags, fine ores, dusts from steel manufacturing, millscale for obtaining pig iron and environmentally safe slags, wherein a molten slag and an iron bath are used at a volume ratio ranging between 0.5:1 and 1.5:1, wherein carboniferous material is introduced in the bath and hot air is blown. A mixed slag is obtained from the initial slags and the ferriferous materials having alkalinity CaO/SiO_2 ranging between 1.2 and 2.5 and placed in a hearth type furnace or a ladle, wherein hot air for post-combustion of CO formed from the carbon in the bath is blown with a post-combustion degree of PC = (a) $(\text{CO}_2 + \text{H}_2\text{O})/(\text{CO} + \text{CO}_2 + \text{H}_2 + \text{H}_2\text{O})$ between 0.70 and 0.85. The hot exhaust gases of the furnace or the ladle are evacuated tangentially to the axis of the mouth of the hot air feeding lance.

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