

Title (en)
REFRACTORY MATERIALS COMPRISING A MIXED CRYSTAL HAVING SPINEL STRUCTURE

Title (de)
FEUERFESTE MATERIALIEN ENTHALTEND EINEN MISCHKRISTALL MIT SPINELL-STRUKTUR

Title (fr)
MATÉRIAUX RÉFRACTAIRES CONTENANT UN CRISTAL MIXTE À STRUCTURE SPINELLE

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Application
EP 15709207 A 20150312

Priority
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• EP 2015055193 W 20150312

Abstract (en)
[origin: WO2015136041A1] Refractory materials obtained by heating a mixture Z to at least 250°C, preferably to at least 350°C, characterized in that the mixture Z comprises the following components: * 80% to 97% by weight of a component A, where the percentages by weight are based on the total mass of components A, B and, if present, C in the mixture Z which consists to an extent of at least 80% by weight, preferably to an extent of at least 90% by weight, where the percentages by weight are based on component A, of one or more of the oxides selected from the group consisting of Al₂O₃, Zr O₂, Be O, Mg O, Ti O₂, Fe₂O₃, Cr₂O₃, La₂O₃, Ta₂O₅ and SnO₂, and * 3% to 15% by weight of a component B, where the percentages by weight are based on the total mass of components A, B and, if present, C in the mixture Z, and component B comprises to an extent of at least 80% by weight, preferably to an extent of at least 85% by weight, more preferably to an extent of at least 90% by weight, where the percentages by weight are based on component B, a mixed crystal having spinel structure comprising at least the oxides Fe₂O₃, Al₂O₃, Mg O and Cr₂O₃, where the mixed crystal having spinel structure of component B contains * 30% to 80% by weight, preferably 40% to 68% by weight, of Fe₂O₃, * 10% to 60% by weight, preferably 15% to 43% by weight, of Al₂O₃, * 5% to 55% by weight, preferably 10% to 38% by weight, of MgO and * 5% to 55% by weight, preferably 7% to 35% by weight, of Cr₂O₃, where the percentages by weight are based on the mass of the mixed crystal having spinel structure, and * 0% to 15% by weight of a component C, where the percentages by weight are based on the total mass of components A, B and, if present, C in the mixture Z which consists to an extent of at least 86% by weight, preferably to an extent of at least 92% by weight, where the percentages by weight are based on component C, of carbon.

IPC 8 full level
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Citation (search report)
See references of WO 2015136041A1

Cited by
CN107759214A; CN107935609A

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