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CHARACTERIZATION OF ALUMINA-MAGNESIA-CARBON REFRACTORY BRICKS CONTAINING ALUMINUN AND SILICON

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ABSTRACT

The present paper is a continuation of previous ones focused on the characterization of alumina-magnesia-carbon refractories (AMC) bricks. Unlike those characterised materials which only have aluminium as an antioxidant, a brick also containing silicon is comparatively analysed in this paper. Along with metallic aluminium, silicon is among the most commonly used antioxidant additives in oxide-C refractories, but the studies on the incorporation of this metal into AMC bricks are rather limited.

In this work, several complementary techniques were used in combination to achieve a detailed characterization in relation to the physical and chemical characteristics and thermal evolution of the Si-containing AMC refractory: X-ray fluorescence, plasma emission

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