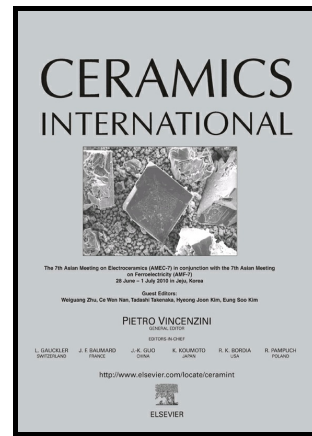


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MICROSTRUCTURAL INVESTIGATION AND PERFORMANCE EVALUATION OF SLIP-CAST ALUMINA SUPPORTS

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www.elsevier.com/locate/ceri

PII: S0272-8842(16)32286-6
DOI: <http://dx.doi.org/10.1016/j.ceramint.2016.12.037>
Reference: CER114347

To appear in: *Ceramics International*

Received date: 12 September 2016
Revised date: 5 December 2016
Accepted date: 6 December 2016

Cite this article as: Janaína A. Queiroga, Eduardo H.M. Nunes, Douglas F. Souza, Daniela C.L. Vasconcelos, Virginia S.T. Ciminelli and Wander L. Vasconcelos, MICROSTRUCTURAL INVESTIGATION AND PERFORMANCE EVALUATION OF SLIP-CAST ALUMINA SUPPORTS, *Ceramics International*, <http://dx.doi.org/10.1016/j.ceramint.2016.12.037>

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EVALUATION OF SLIP-CAST ALUMINA SUPPORTS

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Abstract

In this work we successfully obtained slip-cast alumina supports with tubular shape. It was investigated the influence of both the starting powder particle size and heat treatment program on the pore structure and water permeability of the prepared materials. This study is supported by a series of experimental tests, including Archimedes method, mercury intrusion porosimetry, scanning electron microscopy, and cold crushing tests. We observed that the heat treatment temperature exhibited a more significant effect on the porosity than the sintering time. It was noticed that, in a general way, the higher the sintering temperature, the smaller the porosity and the larger the apparent density of the prepared materials. In addition, the raise of the sintering

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