

# 5<sup>th</sup> Global Chemistry Congress

September 04-06, 2017 | London, UK

## Regulation of open porosity and strength in ceramics based on electro corundum and porcelain binder

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The most important characteristic of ceramic materials, which determines most of the physical properties, is the porosity. Porous materials are commonly used as catalyst supports in the processes of oxidation, hydrogenation and dehydrogenation at high temperature, corrosion in feed processing - corrosive environments at endothermic and exothermic reactions. In particular, for this purpose, various types of corundum materials with high chemical inertness. Porosity materials due to the high porosity and the peculiar structure have specific properties dramatically different from those of the corresponding chemical composition of dense materials [1, 2]. There was obtained a highly porous material of alumina carriers for catalysts. The filler used to be electro corundum, as reinforcing filler, forming on fire a bundle used porcelain. The samples were prepared by impregnating the ceramic slurry polyurethane foam (PUF), followed by drying and calcining at 1350 °C, 1450 °C. The flexural strength of the sintered samples without PUF with burnable additives showed from 19 to 151 MPa, an open porosity of 17 to 25 %, and for the samples duplicated PUF after firing showed the porosity was 60 - 65 %, the compressive strength of 3.5 MPa.

### Biography

Zaw Ye Maw Oo has completed his PhD at the age of 26 years from Mendeleev University of Chemical Technology of Russia by government scholarship. Now he is attending postdoctoral studies in that university. He has published more than 5 papers in reputed journals.

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