

# COBALT SUPPORTED ALUMINA CATALYST FOR OXIDATION OF GLUCOSE TO GLUCONIC ACID

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## **Abstract**

Glucose is one of the most essential carbohydrate feedstock for the production of industrial chemicals [1]. One of the important and valuable chemical as a starting feedstock to produce gluconic acid [2, 3]. On the rise of industries and new applications of gluconic acid further increase demand in gluconic acid in these recent years and is expected to continue rising in future [4]. As the commercialize biochemical route is not recyclable, possesses negative impacts to environment and other drawbacks, many researchers have put much attention towards catalytic oxidation of glucose to gluconic acid with the use of selective heterogeneous catalyst. However, the selective oxidation of glucose is quite challenging as to the activity of catalyst and low conversion. These pose difficulties in designing process, operation and production at industrial scale [5].