

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202431092364 A

(19) INDIA

(22) Date of filing of Application :26/11/2024

(43) Publication Date : 29/11/2024

(54) Title of the invention : An adsorbent/catalyst support material from the byproduct of hydrolysis of aluminium waste or scrap and a process for the preparation thereof

(51) International classification :B01J0020280000, B01J0035630000, B01J0037000000, B01J0035610000, B01J0020080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

This invention relates to an adsorbent/catalyst support material from the byproduct of hydrolysis of aluminium waste or scrap and a process for the preparation thereof. The process comprises subjecting the byproduct of hydrolysis of aluminium waste or scrap to neutralization and filtration to obtain a filter cake, subjecting the cake to complete neutralization by washing, followed by drying at room temperature, further drying and subjecting the dried product to calcination at a temperature between 450 - 650 °C for 90 to 120 min to obtain the alumina-based adsorbent/ catalyst support. These calcinated powder samples are then ball milled to reduce the particle size for further use, for example, for polyamine impregnation for CO₂ capture. Fig. 1

No. of Pages : 26 No. of Claims : 12