

Advances in Aluminium Smelting

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Abstract

Since the invention of the Hall-Heroult Process in 1886, rapid strides have taken place in Aluminum smelting technology, more so, in the last 30 years. The paper traces the history of development and outlines the emerging technological trends, in the years to come. Thus, efforts are under way to improve pot productivity by increasing cell amperage, reduce specific power consumption through drained cell technology, low temperature electrolysis, alternate extraction process such as Carbothermic reduction and above all restrict emission of GHG with development of Inert anodes etc.. In general, the emphasis in R&D efforts has been to develop more energy efficient and cleaner technologies in the wake of increasing concerns of fuel shortage and global warming.