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APPLICATION OF INDUSTRIAL RED MUD

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ABSTRACT

Red Mud is solid waste, brick red in colour is a by-product of Bayer process of alumina production. About 1 to 1.5 tonne of red mud is produced from production of 1 tonne of alumina. The waste generation is in huge quantity and methods for management of waste is not followed properly. It leads to spreading & leakage of Red Mud in environment. Hence, conversion of red mud to a valuable product was especially important. The main aim was conversion of Red Mud into valuable product. The potential of red mud for various applications like Magnetic Slime, Car batteries & permanent magnet was tested with procedures such as conversion of Red Mud into Ferrites in which red mud samples were mixed with Strontium/ Barium carbonate mixed with Activated charcoal which were combusted to form ferrite product for permanent magnet preparation, Preparation of magnetic slime using fevicol & boric acid which could be used in Toy Industry & in Electrochemical applications in which red mud cells were prepared using Plaster of Paris and sodium chloride can be used for making car batteries.

Keywords- Red Mud (RM), Ferrites, Electrochemical cells, Magnetic Slime