REDUCTION OF IRON SAND USING MICROWAVE ENERGY

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Abstract
Iron sand is a source of iron ore that can be utilized to meet the consumption of steel in Indonesia. With the reduction process of iron sand is so fast and environmentally friendly natural resources can be best utilized.

In this experiment, iron sand and coal. Variable reduction using a microwave at each input power 400 Watt, 600 Watt and 800 Watt and the residence time reduction of 10 minutes, 20 minutes and 30 minutes.

Based on data from the results, the highest Fe content of 75.37% using 800 watts microwave power and dwell time reduction of 30 minutes. Has also formed a rough iron alloys at 800 Watt power usage.

Keywords: Iron Sand, Microwave, Reducer
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