DETERMINATION OF WORK INDEXES OF RUN-OFF MINE AND CALCINED KOTON KARFE IRON ORE

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ABSTRACT
In this research, the work indexes of the Run off Mine and calcined Koton Karfe iron ore were determined. The work indexes were determined for the As-received(run-off-mine) and calcined at 1200°C using the comparative method of determining work index otherwise known as the Berry and Bruce Method. The results obtained gave a value of 17.00kwh/tone, for the as-received while 11.33kwh/tone, for the calcined iron ore. The low value of the work index obtained for the calcined ore could be attributed to the thermal effect of heating on the ore which might have resulted into weakening of grain boundaries of the minerals constituting the ore. In conclusion this results show that more energy will be required to comminute the Run off mine ore than the calcined ore.