populations rank test for bio-waste proximate-ultimate analysis and the discussion show the following bio-residues qualified for briquetting to produce high carbon value briquettes: sunflower seed cake, palm nut trash, saw-dust, ground nut husks, cotton seed cake, de-coated cottonseed, maize cob trash and coffee husks rank. The reason for rice and millet husks disqualification from briquetting is also warranted. The low regression coefficients make it clear why the energy from bio-waste does not show much significance from the values of its raw form variables. This makes it clearer why other processes like torrefaction and or pyrolysis are needed in the briquettology science if high fixed carbon briquettes are to be produced. This is necessary because the environmental concerns due to global warming if they have to be addressed by energy conversion techniques to overcome fuel starved metallurgical demand for ore reduction and processing, then this seems the rational way to move. The ultimate analysis on biomass is also good for selecting design parameters for furnaces, control of slugging, fouling and corrosion. The data results on volatile matter and ash content was much in agreement with established literature, and lends credence and reliability on the data collection methods used for this study. Reduction of metallic ores needs fuels with high carbon content. This is good news for the prospective metallurgist in quest for efficient fuel alternatives for metallic ore reduction.

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